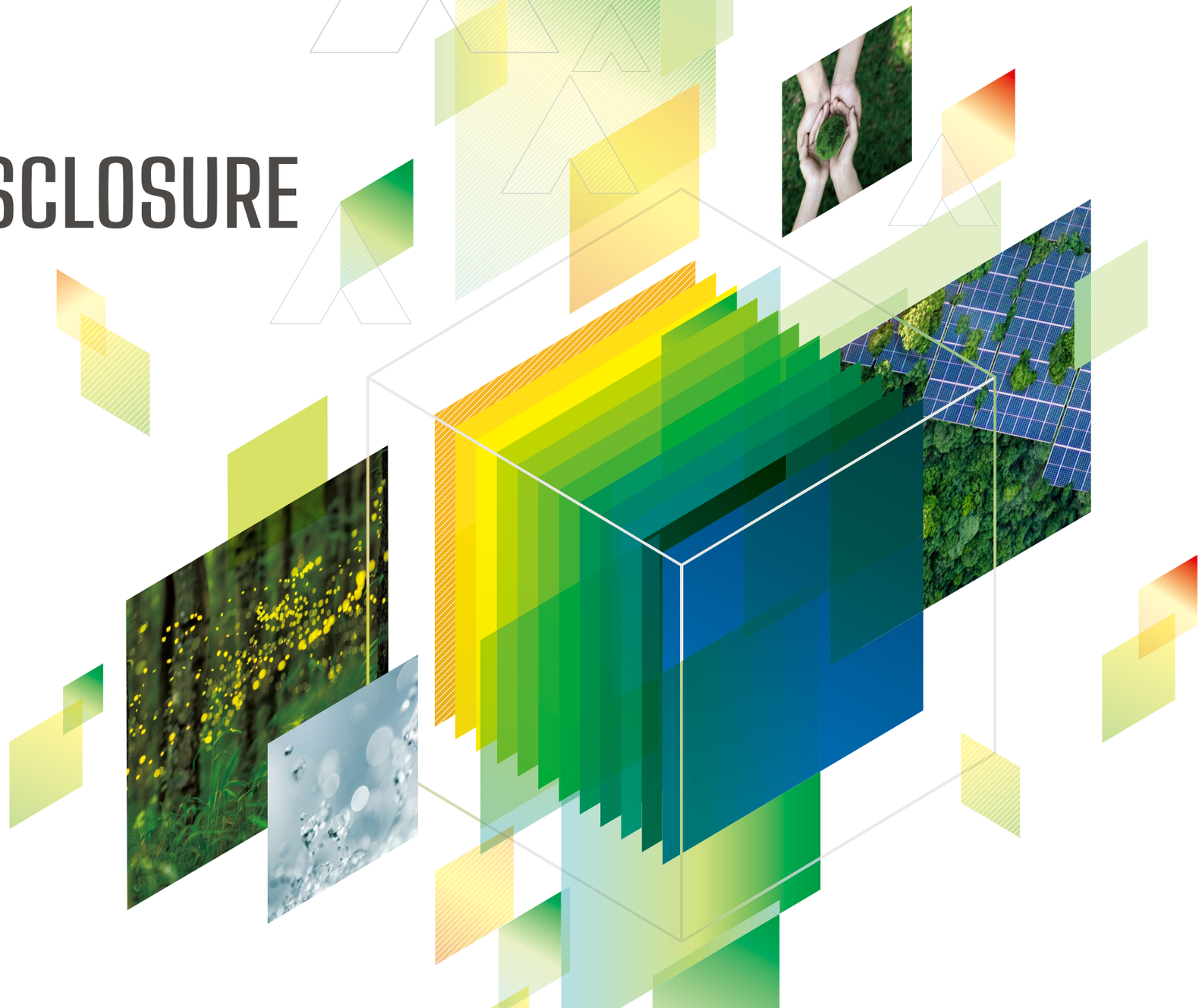
2024 KT&G

SUSTAINABILITY DISCLOSURE – CLIMATE



KT&G

ABOUT THIS REPORT

Report Overview

KT&G engages primarily in the manufacturing and sale of tobacco products. The parent company operates the Daejeon Plant for tobacco manufacturing, along with 2 additional manufacturing facilities, 11 regional headquarters, and 88 branches/offices for selling manufactured tobacco. It also owns the Gimcheon Plant for processing leaf tobacco and the Cheonan Plant for packaging materials. The company's headquarters is located at 71, Beotkkot-gil, Daedeok-gu, Daejeon. For details regarding the shareholder status of the parent company, please refer to the current business report under "VII. Matters Related to Shareholders."

Reporting Corporation and Scope

This report provides climate-related financial information for KT&G and its subsidiaries (hereinafter referred to as the "consolidated entities"). Information specific to KT&G, which constitutes a significant part of the consolidated entities, is presented separately as information pertaining to "the company." Other information categorized as "consolidated entities" refers to data including both the company and its consolidated subsidiaries. For details on the full list of consolidated subsidiaries, please refer to the current business report under "XII. Detailed Table – 1. Status of Consolidated Subsidiaries (Details)."

Reporting Standards

This report has been prepared in accordance with the requirements of the draft version of sustainability disclosure standard No. 2, "Climate-related Disclosures," set by Korea Sustainability Standards Board (KSSB). The financial information within this report is based on the business report prepared under the Korean International Financial Reporting Standards (K-IFRS).

Reporting Period

The reporting period covered in this report is from January 1, 2024, to December 31, 2024. However, for timely information, certain activities, such as the status of the Board of Directors and the Sustainability Committee, include updates through June 2025.

Reporting Currency

The currency used in this report is the South Korean Won (KRW), which is consistent with the currency used in the consolidated financial statements of the consolidated entities.

DISCLAIMER

This report is a pilot report prepared to preemptively address the climate-related risks and opportunities of consolidated entities, based on the requirements of the draft version of sustainability disclosure standard No. 2, "Climate-related Disclosures," set by the Korea Sustainability Standards Board (KSSB) of the Korea Accounting Standards Board.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This report contains not only information about the current or past activities and achievements of KT&G aimed at sustainable growth and social value creation, but also forecasts, prospects, and estimates about the future. Terms such as "prospect," "expectation," "estimate," "anticipation," "plan," "goal," "scheduled," and similar expressions in this report denote these forward-looking statements. These are based on reasonable assumptions and expectations as of the date of this report's preparation and involve known and unknown risks and uncertainties. Consequently, the actual outcomes of the forecasts, prospects, and estimates may differ from those originally predicted. While KT&G believes the expectations reflected in these forward-looking statements are reasonable, it cannot assure that these expectations will prove to be correct. Such statements are intended to assist stakeholders in understanding our approach, strategy, and initiatives regarding key ESG areas, and under no circumstances should this report be used as evidence of legal responsibility for investors' outcomes.

CONTENTS

GOVERNANCE

1. GOVERNANCE BODY 04
   (1) Governance Body and Responsibility Policy 04
   (2) Management/Oversight Competencies and Development 05
   (3) Method and Frequency of Acquiring Information Related to Risks and Opportunities 06
   (4) Method of Considering Climate-related Risks and Opportunities in the Major Decision-making Process 06
   (5) Management/Oversight of Goal Setting and Progress 06
2. TOP MANAGEMENT 07
   (1) Delegation of Climate-related Management/ Oversight Roles 07
   (2) Top Management's Use of Control and Procedure 08

STRATEGY

1. CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES 09
   (1) Anticipated Climate-related Risks and Opportunities 09
   (2) Impact of Risks and Opportunities According to the Time Horizons 09
   (3) Definition of Time Horizons and its Linkage with Strategic Planning 09
2. BUSINESS MODEL AND VALUE CHAIN 10
   (1) Current and Anticipated Impact on the Business Models and Value Chain 10
   (2) Areas Where Risks and Opportunities are Concentrated 11
3. STRATEGY AND DECISION-MAKING 18
   (1) Response and Plans for Climate-related Risks and Opportunities 18
   (2) Resource Acquisition Plan 18
   (3) Quantitative and Qualitative Information on the Progress of Plans Disclosed in Past Reporting Periods 18
   (4) Trade-offs Associated with Climate-related Risks and Opportunities 18
4. FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW 19
   (1) Financial Impact of Climate Change During Reporting Period (Current) 19
   (2) Risks That May Lead to Significant Adjustments to Assets and Liabilities 20
   (3) Anticipated Financial Impacts of Climate Change 20
5. CLIMATE RESILIENCE 21
   (1) Implications of Company Assessment on Strategy and Business Model 21
   (2) Climate-related Scenario Analysis Method 24

RISK MANAGEMENT

1. CLIMATE-RELATED RISK AND OPPORTUNITY MANAGEMENT PROCESS 25
   (1) Inputs and Parameters 25
   (2) Identification of Climate-related Risks and Opportunities 25
   (3) Assessment of Climate-related Risks and Opportunities 25
   (4) Prioritization of Climate-related Risks and Opportunities 26
   (5) Monitoring of Climate-related Risks and Opportunities 26
   (6) Changes in the Risk Management Process 26
2. INTEGRATION WITH THE ENTERPRISE RISK MANAGEMENT SYSTEM 26

METRICS AND TARGETS

1. CLIMATE-RELATED METRICS 27
   (1) Greenhouse Gas 27
   (2) Climate-related Transition Risks 32
   (3) Climate-related Physical Risks 32
   (4) Climate-related Opportunities 32
   (5) Capital Allocation 32
   (6) Internal Carbon Pricing 33
   (7) Compensation 33
   (8) Industry-based Metrics 33
2. CLIMATE-RELATED TARGETS 34
   (1) Information Related to Metrics Used to Set the Targets (Target Metric, Objective, Application Scope, etc.) 34
   (2) Method of Monitoring Progress towards the Target 34
   (3) Performance Analysis against Target 35
   (4) Information on GHG Emissions Reduction Target 35

INTERACTIVE PDF

This report has been published as an interactive PDF, allowing readers to move to pages in the report, and including search functions.

Contents | Previous Page | Search

GOVERNANCE

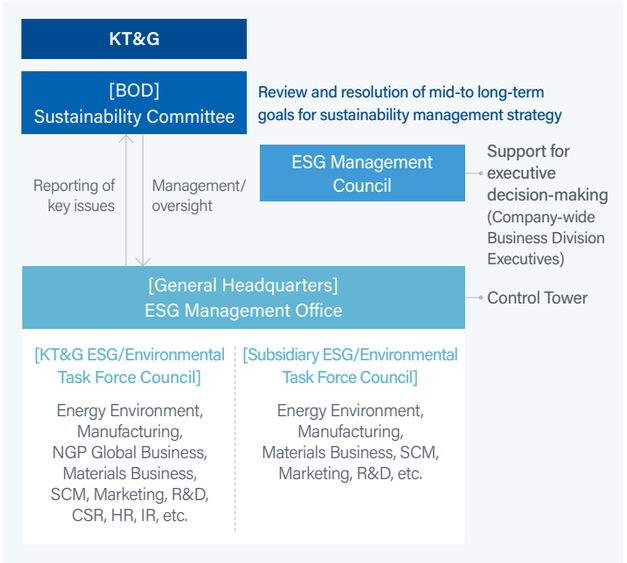
1. GOVERNANCE BODY

(I) Governance Body and Responsibility Policy

KT&G recognizes sustainability, including climate change, as key agenda of corporate management, and fulfills the responsibility of managing/supervising climate-related risks and opportunities, with the BOD and the committees under the BOD performing central roles. The BOD has the final responsibility for KT&G's strategic direction and major decision-making, and runs the Sustainability Committee under the BOD for more professional deliberations and decisions.

Pursuant to Article 4 (Committee Authority), Paragraph 1 of the "Sustainability Committee Operation Regulations," the Sustainability Committee has the authority to deliberate and decide on major agenda, including establishing basic policies and strategies on sustainability management and setting mid- to long-term goals of sustainability management. In accordance with KT&G's "Environmental Management Policy," it performs the role and responsibility of establishing strategies to respond to risks and opportunities caused by climate change and to manage/supervise the execution status.

MANAGEMENT AND OVERSIGHT IMPLEMENTATION SYSTEM



The Sustainability Committee held three meetings in 2024. During a meeting in May, it deliberated and decided on an ESG management execution plan that includes the net-zero strategy advancement direction and new targets regarding natural capital. In August, it examined and approved major ESG policy revisions in relation to responding to climate change that are in line with global standards. In November, it received a report on the results of a Group-level human rights impact assessment and reviewed the results. By doing so, the Committee examined the business implications of climate-related risks and opportunities from various angles and made actual contributions to setting a direction for establishing and executing ESG strategies.

Other board committees also support sustainability-related decision-making according to their respective authority and functions. The Management Committee deliberates/decides on the company's basic strategies and major work execution matters, and performs oversight functions that are connected to internal control so that sustainability-related matters are reflected in overall management. The Evaluation and Compensation Committee sets relevant metrics so that ESG performance can be appropriately reflected in the top management's compensation system, and objectively reviews the CEO's performance in executing ESG targets. The Independent Directors Nomination Committee nominates candidates by comprehensively considering the BOD composition's diversity, independence, and ESG oversight capabilities, thereby enhancing the BOD's expertise in sustainability issues, including climate issues. The Audit Committee examines the company-wide risk management system, and reviews ESG management activities, including climate change, through the audit planning team, which is an independent internal audit organization.

MANAGEMENT/OVERSIGHT ROLES AND RESPONSIBILITIES

Category	Sustainability Committee Operation Regulations	KT&G Environmental Management Policy
Scope of authority and responsibility	**Article 4 (Committee Authority)** ① Matters that shall be deliberated/ decided by the Committee are as follows: 1. Establish basic policies and strategies on sustainability management 2. Set mid- to long-term goals of sustainability management	**Scope of responsibilities** At KT&G, the Sustainability Committee, which is a board committee, reviews execution strategies in the environmental area and the direction of response to major issues, and manages and supervises execution outcomes.

COMPOSITION OF THE SUSTAINABILITY COMMITTEE

Category	Name	Position	Initial appointment date	Gender
Independent Director	Shon, Dong-hwan	Chairperson	Mar. 29, 2024	Male
Independent Director	Lee, Jee-hee	Member	Mar. 30, 2022	Female
Executive Director	Lee, Sang-hak	Member	Mar. 27, 2025	Male

* As of July 2025

CRITERIA FOR CONVENING THE SUSTAINABILITY COMMITTEE

Category	Content
Operation cycle	At least twice a year (the chairperson convenes the Committee whenever necessary based on the chairperson's authority)

GOVERNANCE 01
GOVERNANCE BODY
TOP MANAGEMENT
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(2) Management/Oversight Competencies and Development

KT&G recognizes the expertise and decision-making capabilities of the BOD as crucial elements for effectively managing and supervising the formulation and execution of climate change response strategies. Accordingly, we define sustainability-related competencies in a structured manner for the composition and operation of the BOD and have established a system that enables objective evaluation and management.

BOARD SKILLS MATRIX

Experiences & Expertise	Shon, Kwan-soo	Kim, Myung-chul	Koh, Yun-sung	Lee, Jee-hee	Kwak, Sang-wook	Shon, Dong-hwan	Bang, Kyung-man (CEO)	Lee, Sang-hak
Senior Executive Leadership (7/8)	●	●		●	●	●	●	●
Manufacturing/Supply Chain (1/8)	●							
Finance/Accounting (4/8)		●	●				●	●
Risk Management (4/8)	●	●					●	●
Global Business (4/8)	●	●		●			●	
Sustainability (3/7)				●			●	●
Consumer Industries (4/8)	●			●			●	●
Legal Regulatory (4/8)			●		●	●		●
Tenure	Mar. 30, '22 – '25. AGM	Mar. 29, '23 – '26. AGM	Mar. 29, '23 – '26 AGM	Mar. 30, '22 - '25 AGM	Mar. 29, '24 - '27 AGM	Mar. 29, '24 - '27 AGM	Mar. 29, '24 - '27 AGM	Mar. 27, '25 - '27 AGM
Independence (75%)	●	●	●	●	●	●		
Committee	Governance, Management, Audit	Evaluation and Compensation, Audit	Evaluation and Compensation, Audit	Governance, Sustainability	Governance, Audit	Governance, Sustainability	Management, Sustainability	Management, Sustainability
Gender (Female ratio: 13%)	Male	Male	Male	Female	Male	Male	Male	Male

* As of July 202

When appointing a new director, KT&G uses the "KT&G Board Skills Matrix" as criteria to quantitatively evaluate the collective expertise and diversity of BOD members. BSM consists of a total eight evaluation items, of which sustainability capability was set as a separate item. This item is defined as "the capability to support the company's sustainable growth and to contribute to the management/oversight of ESG-related risks and opportunities." We determine whether a director has this ability based on the following internal criteria. This enables us to review the climate and ESG-related expertise and practical understanding of director candidates from multiple perspectives, ensuring that the Board possesses the necessary capabilities to effectively oversee climate strategies.

SUSTAINABILITY COMPETENCY ASSESSMENT ITEMS

Work experience at an executive level or higher in a sustainability-related department at a listed company, experiences in establishing ESG strategies or implementing policies, completion of relevant educational courses, achievements in ESG disclosures and external communications, experience in consulting on sustainability issues with stakeholders, etc.

STATUS OF SKILLS AND COMPETENCIES Independent director Lee, Jee-hee has been participating in the committee since 2022 and is a consumer goods industry expert who carried out sustainability management-related activities at international organizations, including the Women Corporate Directors (2022-2023). In addition, she developed expertise and sensibility on global issues related to ESG and climate change by completing the ESG Management Executive Leadership Program of Seoul National University. Based on this background, she has been contributing to the strategic review and policy direction regarding climate change risks and opportunities within the committee and served as the Chair of the Sustainability Committee in 2024.

Executive director Lee, Sang-hak, who joined the Sustainability Committee in 2025, is performing key roles in realizing the mid- to long-term vision and establishing an ESG-based management systemChief Operating Officer. When he was formerly the Chief of Sustainability Management HQ, he overhauled the ESG foundation by responding to policies and carrying out external communication in consideration of the overall value chain, and made practical contributions to overall sustainability management, including climate change issues.

MEASURES TO STRENGTHEN COMPETENCIES In 2024, independent director Lee, Jee-hee completed the Executive course for ESG management at Seoul National University, through which BOD expertise was strengthened on overall ESG, including climate change issues. In addition to official training, KT&G will continually provide a foundation that enables the BOD and committee members to understand and supervise climate-related strategies through working-level organizations' support and an external consultation system.

Date	Trainee	Content
Apr. 09, 2024 – Nov. 26, 2024	Lee, Jee-hee	Executive course for ESG management at Seoul National University

GOVERNANCE 01
GOVERNANCE BODY
TOP MANAGEMENT
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(3) Method and Frequency of Acquiring Information Related to Risks and Opportunities

KT&G operates a structured internal reporting system to enable the BOD and the Sustainability Committee under the BOD to effectively manage and oversee climate change-related risks and opportunities. To make strategic judgments on climate issues, the Sustainability Committee receives, in advance, explanations and materials on major policy changes, legislative and regulatory trends, and status of ESG implementation from the ESG Management Office under the General Headquarters when it holds a meeting. In addition, it receives sufficient information through support from working-level departments before and after deliberation of agenda. We also have a structure in place that allows the Sustainability Committee to receive outside expert advice based on company expenses for matters that are complex or require expertise.

Major climate-related agenda are introduced officially to the BOD or Sustainability Committee in accordance with the Board of Directors Regulations. Matters that are deliberated/decided on by the Committee are notified to all BOD members within three days of the decision to enable prompt sharing of relevant content among all directors.

Target	Sustainability Committee	BOD
Main agent	Head of ESG Management Office	Chairperson of the BOD Committee
Frequency and timing	• At least twice a year • When a Sustainability Committee meeting is held, each member expresses his/her opinion and makes a resolution on discussed agenda	• At least twice a year • Make a notice to each director rather than the Committee within three days from the Sustainability Committee resolution date
Main content	• Agenda items related to sustainability, including climate-related risks and opportunities	• Deliberation/resolution results of agenda related to sustainability, including climate-related risks and opportunities

(4) Method of Considering Climate-related Risks and Opportunities in the Major Decision-making Process

Monitoring of climate-related risks and opportunities of KT&G and its subsidiaries that are subject to consolidation takes place through regular holding of the Sustainability Committee. The BOD deliberates/decides on matters that accompany large-scale facility investments, etc.

MAJOR AGENDA ITEMS CONSIDERED IN THE CONTEXT OF CLIMATE RISKS/OPPORTUNITIES DURING THE REPORTING PERIOD

Category	Date	Approval	Major agenda content	Considerations for climate-related risks and opportunities
Sustainability Committee	May 09, 2024	Approval	2024 ESG management promotion plan (draft)	• Global ESG trends, including climate crisis and disclosure of financial impacts • Major achievements in 2023, including progress on the Group ESG goals (including climate change response) • Climate-related goals and key action plans for 2024, including Net Zero strategy advancement • 2024 materiality assessment design and results, including identification of key climate change issues
	Aug. 08, 2024	Approval	ESG policy revision (draft)	• Key policy details on climate change response aligning with global standards (including upgraded mid- to long-term GHG reduction targets)

(5) Management/Oversight of Goal Setting and Progress

KT&G manages and supervises the status of establishing and executing strategies and targets aimed at responding to climate change-related risks and opportunities through the Sustainability Committee. In August 2023, the Sustainability Committee deliberated and decided on the Group-level mid- to long-term greenhouse gas (GHG) reduction targets that are based on the Science Based Targets Initiative (SBTi) guidelines. In May 2024, it deliberated and decided on an agenda item that moved forward the net-zero target ahead by five years to 2045 from the previous 2050. This target received official approval from SBTi in November 2024. The Committee regularly monitors the progress of established goals, examines their implementation, and continuously evaluates the effectiveness of strategies based on the level of achievement and performance. Details of each target can be found in "2. Climate-related Targets" under "Metrics and Targets."

To strengthen the top management's responsibilities and ability to execute climate change response, KT&G connects sustainability management performance with executive director's compensation. In accordance with the "Executive Director's Compensation Policy," the Evaluation and Compensation Committee under the BOD annually evaluates sustainability-related performance, including climate response targets, and reflects the results in the executive director's bonus.

RESULTS OF MANAGEMENT/OVERSIGHT OF GOAL SETTING AND PROGRESS

Category	Date	Content
Goal setting	Aug. 03, 2023	• The Group's climate change response goal for 2030 (Based on the SBTi guidelines) - GHG reduction rate from 2020: 42% (Scope 1+2) - Renewable energy usage rate: 80% • Achieve the Group's Scope 1, 2, and 3 net-zero by 2050[1)]
Management/ Oversight of progress	May 09, 2024	• Performance in reducing the Group's GHG emissions in 2023 compared to 2020, status of achieving renewable energy goals, etc.
Goal setting	May 09, 2024	• Achieve the Group's Scope 1, 2, and 3 net-zero by 2045
Management/ Oversight of progress	May 08, 2025	• Reduction performance of the Group's GHG emissions compared to 2020, current status of renewable energy achievements, etc. • Approval from SBTi for the 2045 net-zero goal

[1)] The target year was changed from 2050 to 2045 on May 9, 2024

GOVERNANCE 01
GOVERNANCE BODY
TOP MANAGEMENT
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04

LINKING CLIMATE-RELATED GOAL PERFORMANCE WITH COMPENSATION KT&G incorporates the ESG management execution performance, including climate change response, into the top management's compensation, including executive directors. The executive director's compensation consists of a base pay in addition to a short-term incentive and long-term incentive. The payment criteria of each are differentially applied according to annual performance evaluation results, including ESG and climate-related metrics. The short-term incentive is paid within the base pay's 0-280% (president) and 0-165% (executive director) range, and the long-term incentive is paid within the base pay's 0-600% (president) and 0-300% (executive director) range by reflecting three-year performance.

In 2024, we raised the ESG index weight from 5% to 10% in the executive director's short-term management goals. Of this, 5% is based on the outcome of responding to domestic and overseas ESG evaluation organizations, including CDP and MSCI, and the other 5% is evaluated in accordance with the outcome of executing internal strategies, including the GHG reduction performance and rate of implementing the company's low-carbon transition strategy. Climate-related metrics are included in both the external ESG evaluation response performance and internal strategy execution rate, and the short-term incentive is determined by comprehensively reflecting such climate performance.

Furthermore, KT&G operates a stock compensation system linked with performance for the top management, including the executive director, to connect ESG performance with long-term shareholder value and corporate value. In February 2024, we increased the stock compensation proportion of the CEO's long-term incentive to around 60% and also adopted the stock compensation system in short-term incentive. We also expanded the target of performance-linked stock compensation system application to company-wide executives.

For long-term incentive, we have a structure in place in which stock that is on the condition of restricted transfer is based on a three-year deferred payment method so that the actual performance of sustainability management boils down to long-term compensation. In addition, an incentive redemption clause regarding intentional fraudulent accounting and distortion of evaluation materials was included in the Executive Director's Compensation Policy to enhance the soundness and fairness of incentives. By doing so, we strengthened the connection between sustainability management that is based on responsible management and climate response performance.

CRITERIA FOR LINKING WITH COMPENSATION AS OF 2024

Name	Bang, Kyung-man
Position	CEO (Member of BOD, Management Committee, Sustainability Committee)
Type of compensation	Labor income (bonuses)
Calculation standards and methods	• **Short-term incentive:** A comprehensive evaluation is performed on quantified indexes that include revenues, operating profit, and ESG evaluation results, and non-quantified indexes that include advancement of ESG management, strengthening of key growth businesses, advancement of business foundation, and expansion of business portfolio. In particular, in the ESG management advancement items, an evaluation is carried out on execution performance in responding to climate change at the company-wide level, establishment of the Group's mid- to long-term net-zero strategies, establishment of a response system, etc. • **Long-term incentive:** An objective evaluation is carried out on quantified indexes that include revenues, operating profit, ROE, ESG task results, TSR, etc. In particular, the GHG reduction rate is chosen as one of the ESG task results to assess execution of climate change management. • The company assigns to the top management climate change response responsibilities in short- and long-term performance indexes.

2. TOP MANAGEMENT

(I) Delegation of Climate-related Management/Oversight Roles

The Sustainability Management Committee establishes and oversees strategies and policies regarding climate-related risks and opportunities, delegating management responsibilities to the CEO. KT&G's CEO comprehensively oversees the implementation of climate change response strategies approved by the Board of Directors and related management activities.

ESG MANAGEMENT COUNCIL Comprising executives from KT&G's business divisions, the ESG Management Council serves as a top decision-support body. It discusses strategic directions for climate action and ensures continuous communication on issues that arise during implementation. Key discussions are incorporated into executive decision-making to ensure an integrated enterprise-wide ESG strategy.

GENERAL HEADQUARTERS The Chief Operating Officer (COO) concurrently serves as the Chief Financial Officer (CFO), overseeing ESG issues alongside financial planning, investments, and budgeting. This dual accountability structure ensures that ESG-related risks and opportunities are effectively integrated into financial decision-making. The ESG Management Office regularly reports on major climate strategies and performance, and the COO monitors the implementation of key action items.

GOVERNANCE 01
GOVERNANCE BODY
TOP MANAGEMENT
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04

EXECUTION ORGANIZATION To support executive oversight of climate risks and opportunities, KT&G operates the Energy Environment Department under the Manufacturing HQ. This department aggregates and manages the company's climate performance in line with mid-to long-term environmental goals. It also develops and implements detailed strategies, such as transitioning to renewable energy, improving energy efficiency, expanding water reuse, and minimizing waste landfill, all aimed at reducing climate impact. Each site (headquarters, plants, and regional sales offices) designates an environmental performance officer, who works in coordination with the Energy Environment Department to carry out climate-related tasks.

To systematically manage environmental regulations and compliance, KT&G operates the "Industrial Regulation Compliance Operating System." This system includes legal monitoring and updates, as well as self-audits, covering 34 laws and 177 items across four areas—safety, substance management, environment, and energy—as they relate to plant operations.

OUTSIDE ADVISORY TEAM Through the practical consultative body, the Energy Environment Working Group, we assist in overseeing climate-related risks and opportunities. This advisory team is composed of external experts from fields such as consulting, investment analysis, and academia, and is responsible for reviewing transition and physical risk factors based on climate scenario analysis.

(2) Top Management's Use of Control and Procedure

ACQUISITION OF THE ISO 14001 AND ISO 50001 KT&G received ISO 14001 (environmental management system) certification for domestic plants for the first time in 2005 for systematic environmental management implementation that is based on global standards. Six domestic plants maintain the certification as of 2025. We have been making preparations for ISO certification for overseas plants since 2023 to achieve sustainability management that is at a level of global companies. As of 2025, our plants in Indonesia, Turkey, and Russia newly acquired ISO certification.

Furthermore, we newly acquired ISO 50001 (energy management system) to build a foundation for establishment of an energy management system and continued execution of energy-saving. Five domestic plants (Daejeon, Yeongju, Gwangju, Cheonan, Gimcheon) maintain the certification through follow-up audits.

COMPANY-WIDE ENERGY COSTS SETTLEMENT SYSTEM KT&G has strengthened monitoring of energy emissions and water withdrawal across all business sites to achieve its environmental vision, "2030 Green Impact." As part of this effort, the company introduced a company-wide energy costs settlement system in 2022, sharing the progress of GHG emissions against targets. This system is tailored to the company's operational characteristics, which include multiple domestic and overseas business sites. Each business unit enters energy and water consumption data monthly into the digital system based on supporting documentation (such as utility bills). Headquarters then verifies the data in advance to ensure timeliness and accuracy. By doing so, KT&G tracks progress toward site-specific reduction targets, forecasts annual emissions while accounting for seasonal fluctuations, and utilizes the data as a strategic tool for systematic implementation. In 2023, the system's scope was expanded to include overseas manufacturing plants in Indonesia, Türkiye, and Russia, further enhancing our energy and environmental management system. In 2024, we expanded the implementation scope to the Group level and further advanced the management system.

FACTORY ENERGY MANAGEMENT SYSTEM In 2023, KT&G established a Factory Energy Management System (FEMS) at its Daejeon Plant, enabling real-time monitoring of energy consumption by equipment. We reduce energy consumption by identifying factors causing efficiency deterioration based on data collected through the FEMS, implementing immediate improvements, or deriving reduction tasks to link them with capital investments. Additionally, we manage department-level energy reduction activities in alignment with the ISO 50001 Energy Management System.

ISO 14001

ISO 50001

GOVERNANCE 01
GOVERNANCE BODY
TOP MANAGEMENT
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04

STRATEGY

1. CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES

(1) Anticipated Climate-related Risks and Opportunities

KT&G and its subsidiaries utilize climate-related scenario analysis results when identifying climate-related risks and opportunities that are reasonably expected to impact the company's outlook, while also referring to the disclosure topics outlined by the Sustainability Accounting Standards Board (SASB). In the business model, reference was made to the SASB Food & Beverage sector's Tobacco and Processed Foods disclosure topics, while in the value chain, disclosure topics from the SASB Food & Beverage sector's Agricultural Products, as well as the SASB Resource Transformation sector's Containers & Packaging and Chemicals were referenced.

(2) Impact of Risks and Opportunities According to the Time Horizons

KT&G conducted a materiality assessment of climate change risks, identifying 21 overall climate change risks. We prioritized them based on the likelihood of occurrence and the magnitude of impact. As a result, eight climate change risks and three climate change opportunity factors, which ranked relatively higher in priority across major areas, were selected.

(3) Definition of Time Horizons and its Linkage with Strategic Planning

LINKAGE WITH STRATEGIC PLANNING TIME HORIZONS KT&G's strategic decision-making takes place through the establishment of a business plan (3 years) and establishment and review of a mid- to long-term vision (5 years). This is based on the market change cycle of the major Group business portfolio, new product R&D period, etc. In the process of establishing this plan, climate-related risks and opportunities are considered through external trend analysis and internal situation assessment.

KT&G'S CLIMATE-RELATED TIME HORIZONS

Time Horizon	Period covered	Period covered for the current term
Short-term	1 year	- 2025
Mid-term	More than 1 year and no more than 5 years	2026 - 2029
Long-term	More than 5 years	2030 -

Category	Risk/ Opportunity	Factor	Description	Short-term	Mid-term	Long-term
Transition Risks	Policy and Legal	Carbon pricing	• It is a system in which domestic and foreign governments or international organizations impose costs on carbon emissions to incentivize GHG reduction. This may increase cost burdens related to carbon emissions arising during KT&G's manufacturing processes and raw material supply chains. Accordingly, concerns about higher production costs and weakened price competitiveness of products are emerging, and similar cost-increasing factors may arise during the production of health functional foods.	Medium	High	High
	Market	Increased cost of raw materials	• Due to the strengthening of climate change response policies and regulations, the supply stability of primary raw materials such as leaf tobacco and health functional food ingredients may decline, and procurement costs may increase. This could directly impact product production costs, posing a burden on profitability and market competitiveness.	High	High	High
	Reputation	Prejudice against the industry	• As social demands for corporate environmental responsibility related to climate change increase, the negative perception combined with the inherent characteristics of the industry may negatively impact KT&G's corporate image.	Medium	Medium	Medium
		Increased stakeholder concern or negative perceptions	• If the response to climate change is perceived as inadequate, it may lead to a decline in trust among key stakeholders such as investors, customers, and regulatory agencies. This could negatively impact the company's reputation and financing in the global market.	Medium	Medium	Medium
Physical Risks	Acute	Typhoons and hurricanes	• Strong winds and heavy rains caused by extreme weather events may directly impact domestic and overseas business sites and logistics hubs, increasing the likelihood of disruptions in product production and supply chain operations. Particularly, if damage occurs in major sourcing areas for raw tobacco leaves, disruptions in raw material procurement are anticipated.	Medium	Medium	Medium
		Heavy rainfalls and floods	• Continuous heavy rainfall, resulting in flooding and infrastructure damage, can destabilize production and logistics systems, posing a threat to the continuity of product supply. In particular, disruptions to key storage facilities and transportation networks may escalate into company-wide supply disruptions.	High	High	High
	Chronic	Change in temperature	• The continuous rise in average temperatures affects the agricultural productivity and quality of tobacco leaves, leading to changes in cultivation areas and reduced harvest yields for health functional food materials. This not only undermines the stability of raw material supply but also acts as a factor increasing operating costs.	Medium	Medium	High
		Water scarcity	• Changes in precipitation patterns and the increased frequency of droughts due to climate change impose constraints on water resources, affecting water usage in manufacturing and raw material processing. Consequently, this may lead to decreased production efficiency and reduced process stability.	Medium	Medium	High
Opportunities	Products and Services	Consumer preference for eco-friendly, low-carbon products	• As eco-friendly consumption trends continue to grow among consumers, the demand for low-carbon and sustainable products is steadily increasing. In response, initiatives such as developing products that replace plastic filters and adopting eco-friendly packaging materials can strengthen sustainable management capabilities while creating opportunities to tap into new markets.	Medium	High	High
	Resilience	Securing core competitiveness by strengthening climate risk response capabilities	• KT&G is enhancing its proactive response capabilities to climate risks, thereby improving the sustainability of its raw material supply chain. Additionally, the company is establishing disaster response systems to ensure a stable business operation foundation. This structure can contribute to the long-term enhancement of corporate value.	Medium	Medium	High
	Resource Efficiency	Reduced operating costs through expansion of low-carbon and renewable energy facilities	• Improving energy efficiency and expanding the use of renewable energy not only reduce GHG emissions but also lead to operational cost savings. The adoption of solar power facilities serves as an effective means for achieving carbon neutrality while lowering electricity costs.	Medium	Medium	High

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

2. BUSINESS MODEL AND VALUE CHAIN

(I) Current and Anticipated Impact on the Business Models and Value Chain

KT&G distinguishes its business model according to the nature of the businesses operated by the company and its consolidated subsidiaries. Specifically, it is divided into the "tobacco area" that runs the business of manufacturing and selling cigarette products and the next-generation e-cigarette HNB, etc.; the "health functional area" that runs the business of manufacturing and selling red ginseng and non-red ginseng health functional food, etc.; the "real estate area" that runs the business of real estate development and lease; and the "other area" that runs the business of R&D, manufacturing, sales, etc. of drugs/cosmetics. Each business model's value chain encompasses the interactions, resources, and relationships that KT&G utilizes and relies on, from product planning, shipment, consumption, to end of life, in order to produce the company's products or services.

KT&G has identified sustainability-related risks and opportunities in the "tobacco area" and "health functional area" under the "Strategy" section, specifically in "1. Climate-related Risks and Opportunities and Types – (1) Anticipated Climate-related Risks and Opportunities." The "tobacco area" and "health functional area" business model include ① product and technology R&D, ② production and manufacturing of outputs, and ③ sales and marketing; and their relevant value chain activities are ① purchase of inputs, including raw materials/materials, in the upstream, ② distribution and transport of inputs and outputs, and ③ use and disposal of sold products in the downstream.

(A) TRANSITION RISK: CARBON PRICING

If carbon prices surge or stricter and enhanced carbon pricing regulations are implemented, it could lead to a significant risk of increased operating costs based on GHG emissions. In addition, there may be rising indirect carbon-related costs across the entire value chain, including partners, supply networks, and distribution networks. The carbon pricing system transition risk mainly impacts the purchase of inputs, including raw materials and, production and manufacturing stages among KT&G's business models and value chain.

Activity	Current	Anticipated
Purchase of inputs, including raw materials and materials	Farms, which are a major raw material supply chain, are not directly subject to carbon regulations. Also, a low percentage of materials suppliers, which are mostly located in Korea, are directly subject to regulations.	Expansion of carbon emissions regulations is expected to result in the inclusion of carbon emissions costs throughout all value chain processes, including raw materials, production, and distribution, including raw material suppliers. We expect a rise in raw material procurement costs owing to indirect carbon cost increases in the overall value chain, including partner companies, supply chain, and distribution network. In the mid- to long-term future, the costs for collecting and managing supplier carbon information may increase with mandatory Scope 3 emissions management.
Production and manufacturing	KT&G is subject to allocation of GHG emissions allowances and is subject to emissions regulations set by the K-ETS (Korean emissions trading system). We are continually expanding low-carbon facilities and renewable energy facilities.	There is a higher possibility of an increase in allowance prices as a result of each country's strengthened GHG reduction policy on manufacturing business sites and facilitation of the carbon credit trading market. As such, there will likely be an increase in corporate input of resources to transition to a low-carbon production system. There is also a possibility of additional costs from the adoption of the carbon pricing system by countries where overseas manufacturing corporations are located.

(B) TRANSITION OPPORTUNITY: CONSUMER PREFERENCE FOR ECO-FRIENDLY, LOW-CARBON PRODUCTS

Consumers' growing preference for eco-friendly and low-carbon products may pose a potential risk of reduced demand for KT&G. However, it also presents an opportunity to enhance corporate reputation and expand market share through the development of next-generation products and innovations in sustainable packaging. We can strengthen our technological competitiveness by carrying out R&D on new materials that can reduce carbon and securing patents, based on which we can generate additional profits through new product launch and licensing. The adoption of such materials develops new business areas, gives concrete shape to sustainable growth strategies, and contributes to strengthened competitiveness in the global market. Notably, KT&G leverages technological patents and eco-friendly manufacturing capabilities to continuously introduce innovative products and lead the market.

Activity	Current	Anticipated
R&D on products and technology	We are reducing plastic packaging materials by developing biodegradable filters and eco-friendly packages, while expanding the application of recyclable paper packaging materials.	As the market for eco-friendly and low-carbon products expands, product eco-friendliness is expected to become a key factor influencing the company's brand image. Consequently, the importance of developing products and technologies incorporating environmental elements may become even more pronounced.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(C) PHYSICAL RISK

An increase in extreme weather events (drought, flood, heat wave, etc.) caused by climate change leads to a risk to the stable procurement of leaf tobacco and ginseng—KT&G's key materials—and can also impact manufacturing facilities' water accessibility and operational continuity.

Activity	Current	Anticipated
Purchase of inputs, including raw materials and materials	The supply chain of major raw materials, which are leaf tobacco and ginseng, is stable, but the impact of climate change is gradually presenting itself. Ginseng is a plant that grows well in cool weather, and its cultivation areas are steadily moving north due to climate change which may lead to relocation of farmlands and changes in yield. Accordingly, we are carrying out such activities as researching new varieties to respond to the climate disaster and developing sun shading facilities.	Temperature changes impact leaf tobacco growth and can potentially lead to a decrease in yield or changes in geographical locations where cultivation can take place. If climate change accelerates in the mid- to long-term future, there may be a rise in major raw material procurement costs or an increased need for investments for alternative producing area development.
Production and manufacturing	Water is a key resource used in several processes within production facilities, such as cooling and cleaning. Worsened water availability has a risk of reduced rate of operation due to production setbacks. There is no case of a setback in production activities caused by water accessibility at KT&G, but we are increasing investments in the water reuse process in preparation for water stress risk and acute drought.	There may be an increase in manufacturing facilities' operation stoppage risk caused by frequent occurrence of extreme weather phenomena in the mid- to long-term future. Accordingly, a need may arise to make investments to build emergency water supply facilities.

(2) Areas Where Risks and Opportunities are Concentrated

Areas where climate-related risks and opportunities of KT&G and its subsidiaries are focused are purchase of inputs, including raw materials and materials, production and manufacturing, and product and technology R&D.

(A) CHANGES IN RESOURCE ALLOCATION FOR BUSINESS MODELS

KT&G has no direct climate-related resource allocation changes for business models in 2024. We establish and execute resource allocation plans to adopt renewable energy and expand high-efficiency facilities, including the establishment of eco-friendly printing plants, to build eco-friendly facilities and processes.

ESTABLISHMENT OF THE SEJONG BUSINESS SITE, AN ECO-FRIENDLY PRINTING FACTORY

KT&G is currently constructing a printing factory on a site spanning approximately 48,583 square meters within the Mirae Industrial Complex located in Sejong Special Self-Governing City. With an investment of around KRW 180 billion, the facility is set to be completed in 2025, after which relocation will proceed gradually. The newly established printing factory will produce packaging materials such as cigarette packaging and paper boxes for KT&G's tobacco products. It will incorporate state-of-the-art logistics automation and smart printing processes to significantly enhance operational efficiency. The construction of this future-oriented factory emphasizes environmental friendliness from design and utility selection to operation. It aims to incorporate eco-friendly elements throughout all aspects, ensuring environmental sustainability. After completion, we aim to have the printing factory become the first manufacturing facility in Korea to achieve LEED[1] GOLD certification.

[1] Leadership in Energy & Environmental Design: Green building certification program developed by the U.S. Green Building Council (USGBC). It is a globally recognized green building rating system that provides guidelines for environmentally friendly design and construction, taking into account aspects such as water efficiency, energy efficiency, and resource reuse. There are four certification levels based on the evaluation criteria.

ECO-FRIENDLY TECHNOLOGY APPLIED TO SEJONG BUSINESS SITE

Construction	Enhancing energy efficiency	Expanding the use of renewable energy	Reducing water consumption
• Selection of eco-friendly materials • Application of windows and interior materials with excellent insulation effects	• Selection of high-efficiency utility systems • Application of waste heat recovery systems • Adoption of Factory Energy Management System (FEMS)	• Installation of rooftop solar power facilities	• Selection of water-saving products • Establishment of infrastructure designed for recycling used water and rainwater

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(B) DIRECT MITIGATION AND ADAPTATION EFFORTS

Category	Content	Mitigation	Adaptation	Current	Anticipated
① Product material change	• R&D on alternative materials, including non-plastic and biodegradable materials – Development of cigarette filters with lyocell fibers that can reduce carbon compared to cellulose acetate (CA) material – Working on paper filter technology development and review in parallel	●		●	●
	• Establishment of an "Eco-Design" process and guidelines to consider life cycle carbon footprint when developing new products based on LCA results	●		●	●
② Expansion of renewable energy production and procurement	• Installation of photovoltaic power generation facilities on the roof of manufacturing plants	●		●	●
	• Spot purchasing of Renewable Energy Certificates (REC) and I-REC	●		●	●
	• Power Purchase Agreement (PPA)	●		●	●
③ Adoption of high-efficiency facilities and transition to electric vehicles	• Participation in the K-EV100 initiative and change company vehicles to electric vehicles	●		●	●
	• Improvement of internal process energy efficiency – Improve steam boiler operation – Apply inverter control to air compressors – Replace with high-efficiency utility facilities – Adopt the FEMS – Transition to energy-saving compressed air dryers	●		●	●
	• Recycling of surplus heat – Directly reuse hot water generated during the cooling process of drying equipment for the equipment component cleaning – Install an air preheater in the boiler system contributes to improving boiler combustion efficiency by increasing the temperature of the incoming air – Utilize high-temperature condensate from the process for reusing in the hot water production process	●		●	●
	• Reduction in petroleum-based fuel usage and transition to renewable energy sources	●		●	●
	• Introduction and replacement of LEDs in major factories	●		●	●
④ Internal policy	• Incorporating potential carbon prices into long-term business plans and financial risk evaluations through internal carbon pricing	●			●
	• Implementing the company-wide energy costs settlement system	●			●
	• Publishing the "Best Practice Casebook for GHG Reduction and Water Reduction," which summarizes the best practices for energy reduction that have been proven at domestic plants to induce voluntary benchmarking for domestic and overseas plants and the Group subsidiaries	●	●	●	●
⑤ Personnel adjustment	• Promotion of the Energy Environment Technology Team under the Manufacturing HQ to the Energy Environment Department, strengthening its roles, to advance environmental management	●		●	
	• Designating an environmental performance officer in each organization (HQs in head office, plants, regional sales offices, etc.) to implement tasks through organic collaboration with the Energy Environment Department	●		●	
	• Providing environmental training sessions through outsourcing to employees in charge of ESG at plants and head office	●		●	
⑥ Minimization of physical risk damage	• Developing and implementing a disaster management standard manual, which includes guidelines for disaster recovery in the event of natural disasters like cyclones and floods		●	●	●
	• Conducting regular risk assessments to identify, evaluate, and mitigate risk factors at each business site, enhancing safety and health management to prevent major disasters		●	●	●
	• Establishing emergency response manuals tailored to specific locations and situations		●	●	●
	• Periodically checking drainage to prevent flood damage		●	●	●
	• Managing an emergency network to communicate the situation in the event of a natural disaster		●	●	●

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

① PRODUCT MATERIAL CHANGE Since 2013, KT&G has been conducting research and development of alternative materials such as non-plastic and biodegradable materials. Among alternative materials, lyocell tow is a material known for its excellent biodegradability after being discarded for it uses a method of converting natural pulp extracted from trees into fibers by simply dissolving it into fibers without chemical modification.

To verify the eco-friendliness of lyocell and its application in filters, KT&G assessed biodegradability in seawater, industrial compost, and general soil. Results showed that in all conditions, lyocell exhibited over 90% biodegradability compared to the control material (cellulose). Based on these findings, the applicability of using lyocell fibers in cigarette filters was demonstrated. In February 2023, we signed a joint development agreement with KOLON Industries for eco-friendly lyocell fiber-applied cigarette filters, secured intellectual property rights through patent registration of related technology, and are continuing research and development to achieve quality similar to existing filters.

In addition, KT&G plans to use packaging materials that are made of only recyclable materials for directly manufactured products by 2025. In Korea, we transitioned 100% to paper inner liners from previous inner liners that were partially made of aluminum and were applied to packaging materials of cigarette products that were internally developed and directly produced by KT&G. We are reviewing measures to expand application to overseas directly produced products in the mid- to long-term future with the expansion of overseas business and manufacturing sites. In addition, to facilitate recycling at the waste disposal stage, packaging materials are primarily made from easily recyclable substances such as paper, PP (polypropylene), or PE (polyethylene) films made of a single material.

By performing LCA, KT&G is identifying environmental issues of major products and exploring various ways to reduce product carbon emissions. In 2024, we identified whether there existed a carbon emissions-reducing solution that was discovered in the internal development stage and whether the solution was actually applied for major issues that were derived per product, and analyzed environmental improvement effects from applying the solution in case a solution was applied. We plan to use the previously derived solutions to examine applicability and economics in the new product development stage, based on which we will explore ways to enhance eco-friendliness of new products.

Develop Eco-friendly Materials And Use Eco-friendly Certified Materials

- Develop eco-friendly materials for cigarette filters
- Promote the applications of paper filters
- Use FSC-certified pulp for product packaging paper

2024 ACTIVITIES TO REDUCE PRODUCT ENVIRONMENTAL IMPACT

Removal of device adapter protective film – Completed	KT&G provides accessories with its device kits at the time of purchase to enhance user convenience. For adapters, protective film was previously applied to prevent surface scratches, although it does not affect product functionality. As a result, the company has eliminated this film from all adapters. Based on 2024 sales volume, this change is estimated to reduce approximately 4.64 tons[1] of CO_2 emissions.
Conversion of device cable fastening band to paper – Completed	KT&G has replaced the polypropylene material used for cable fastening bands in device accessories with paper. This material change is estimated to reduce approximately 10.12 tons[1] of CO_2 emissions.
Reduction of inner frame weight for CCs and sticks – Completed	The basis weight of the inner frame used in packaging for CC and stick products was reduced by approximately 8% without compromising quality, thereby minimizing material usage. Based on 2024 sales, this reduction is estimated to result in a CO_2 emissions reduction of approximately 160.14 tons[2].
Conversion of liquid cartridge injection materials of NGP – In progress	KT&G plans to switch the material used in P2 liquid cartridges to one with a lower carbon footprint[3] compared to the current material. Once implemented, this change is expected to reduce CO_2 emissions by approximately 11.96 g per cartridge.
Conversion of NGP stick inner liner aluminum composite to paper – In progress	To promote recyclable packaging, KT&G aims to convert 100% of the inner liners used in NGP stick products from aluminum composite to paper by 2025. When replaced with recyclable packaging, this transition is expected to reduce at least 4.905g of CO_2 per pack compared to the current stick products.

[1] Assumed and calculated based on the reduction effect for the total sales volume of devices (domestic and export) in 2024
[2] Assumed and calculated based on the reduction effect for the total sales volume of CCs and sticks (domestic and export) in 2024
[3] Environmental impact assessment of materials based on the Ecoinvent v3.8 and CML-IA non-baseline V3.07/EU25 methodology

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

② EXPANSION OF RENEWABLE ENERGY PRODUCTION AND PROCUREMENT KT&G is striving to transition to renewable energy over the mid- to long-term to achieve its 80% renewable energy consumption goal by 2030 and reduce GHG emissions. To this end, we are moving forward with the adoption of solar power generation facilities on the rooftops or roofs of domestic factories and SangSang Madang. We have been operating a 3.1 MWp solar power generation system on the roof of the Gwangju Plant since June 2023. In addition, we plan to install around 10.5 MWp solar power generation systems at five domestic factories by 2025, through which we aim to reduce an annual 6,162 tCO_2eq of GHG emissions.

We are also reviewing and implementing other forms of renewable energy adoption. We are purchasing Renewable Energy Certificates (RECs) for continued reduction according to our mid- to long-term GHG reduction roadmap, and completed a 15,676 MWh International Renewable Energy Certificate (I-REC) purchase for the Indonesia Plant and 3,495 MWh I-REC purchase for the Türkiye Plant as well as a 7,000 MWh Green Energy purchase for the Russia Plant in 2024. In addition, we signed a 20-year, long-term power purchase agreement (PPA) totaling 11.8MWp in 2024, through which we expect to reduce GHG emissions by an additional 6,925 tCO_2eq a year.

As a result of these efforts, KT&G Group's[1] renewable energy consumption rate increased to 15.5% in 2024 and has grown to 21.4% based on all business sites[2] of KT&G. Moving forward, we will continue to accelerate the Group's transition to renewable energy by expanding PPA applications and activating discussions within the group-wide consultative body.

[1] Domestic business sites and oversea manufacturing sites of KT&G, and domestic and overseas manufacturing sites of subsidiaries (KGC, Yungjin Pharm, Tae-A Industrial, COSMOCOS, KGCYebon)

[2] Domestic business sites of KT&G and manufacturing sites of its overseas corporations

PERCENTAGE OF RENEWABLE ENERGY CONSUMPTION AT DOMESTIC AND OVERSEAS BUSINESS SITES OF KT&G

2020	2023	2024
0.1%	19.0%	21.4%

③ CHANGE IN PROCESS AND FACILITIES In 2021, KT&G established a mid-to long-term environmental management vision, based on which the company actively manages manufacturing factory ESG tasks to reduce Scope 1 and 2 GHG emissions by 42%, reduce water withdrawal by 20%, and achieve a recycling rate of 90% compared to 2020 by 2030. To identify key tasks for achieving mid-to long-term environmental targets, the Energy Environment Department has been using internal experts every year since 2022 to conduct on-site assessments for nine plants in Korea and abroad (six in Korea, three overseas), and based on assessment results we derive and implement improvement tasks.

For domestic plants, we are executing direct energy saving-centered tasks, such as a transition to high-efficiency facilities and waste heat recovery, through continued facility investments and manufacturing process improvements. As a result of these efforts, the Cheonan Plant received the Minister of Trade, Industry and Energy Commendation at the "2024 Climate Change Response and Greenhouse Gas Reduction Excellence Awards" ceremony, and the Yeongju Plant and Gimcheon Plant received the Gyeongsangbuk-do Governor Commendation at the "2024 Gyeongsangbuk-do Energy Awards" ceremony in recognition of their efforts to improve energy efficiency and use renewable energy. In addition, we adopted FEMS at the Daejeon Plant in 2023 and are advancing the energy monitoring and management system, based on which we plan to actively expand FEMS adoption at all plants in Korea and abroad by 2026.

In case of overseas plants, we are strengthening our analysis-based reduction activities by establishing measurement infrastructure by installing meters on major energy and water-consuming equipment or locations, such as air conditioners and dryers. Moreover, we chose and are implementing a total of 58 key tasks related to GHG, water, and waste for each plant. To reinforce management capabilities for overseas plants, we plan to continue implementing ESG KPI goal management, sharing case studies of GHG and water usage reduction at domestic plants, and promoting energy environment work guideline revisions.

Performance of Key Improvement Tasks in 2024

- Domestic 41 cases + Overseas 17 cases
- Greenhouse Gas: Reduction of approximately 8,801 tons
  - Expansion of renewable energy: Installation of a solar power generation facility on the roof of the Yeongju Plant and Gimcheon Plant
  - Replacement with high-efficiency facilities: Boiler, freezer, etc.
  - Waste heat recovery: Yeongju Plant's external waste heat recovery and use
  - Process improvement: Humidification with mist injection at Daejeon Plant, fuel efficiency improvement of RTO at Daejeon 2 Plant

KT&G Yeongju Plant

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

Strengthening management of overseas plants To advance ESG management of overseas plants, KT&G establishes 3 major KPI (GHG emissions intensity, water withdrawal intensity, and waste recycling rate) targets per factory every year and holds a monthly ESG video conference to review performance and discuss issues. In addition, non-metric targets are assigned, such as increase in renewable energy ratio and acquisition of global ESG certifications, to reflect ESG performance-based incentives.

We created the Energy Environment Guideline, a work manual for overseas plants, in 2024 and provided it to the Indonesia, Russia, and Türkiye Plants, and established support facility operation standards and the water leak/air leak inspection system. As a result of strengthening overseas plants' ESG management, we made the achievement of reducing GHG emissions by 4.4%[1)] despite increased production in 2023 compared to the previous year.

[1)] Based on Scope 1 and 2 emissions of KT&G's overseas manufacturing sites

Transition of business fleets to electric vehicles KT&G joined the K-EV100 initiative organized by the Ministry of Environment in 2021, actively promoting the transition of its business fleets to electric vehicles (EVs). Starting with the introduction of six EVs at the Yeongdeungpo Integrated Logistics Center in 2021, we have been gradually transitioning to EVs, considering the lease expiration period. As of the first half of 2025, approximately 13.7% of our business fleets have been converted to EVs. With the anticipated rollout of various EV models, we plan to accelerate the transition further and aim to convert 100% of business vehicles to electric vehicles by 2030, thereby contributing to KT&G's mid- to long-term greenhouse gas reduction goals.

* GHG emissions from business fleets are included in Scope 1 and Scope 2 emissions.

Category	Unit	1st half of 2025
Number of EVs owned	Vehicle	144
Proportion of EVs	%	13.7

* Cumulative basis

④ INTERNAL POLICY (OPERATION OF INTERNAL CARBON PRICING) In order to respond to climate change proactively, KT&G introduced guidelines for economic analysis of new investments in 2022 and implemented an internal carbon pricing system as a way to encourage decision-making that considers potential carbon costs. Currently, the internal carbon pricing is utilized when reviewing the payback period for investments at manufacturing plants, where the majority of GHG emissions occur and most reduction activities are implemented. Since its introduction, energy savings and GHG reduction amounts have been identified as having increased compared to prior levels. In addition, since 2023 we have been expanding the scope of the internal carbon pricing to include overseas plants where securing economic feasibility for investments was relatively challenging due to lower energy costs, thereby accelerating GHG emissions reduction.

KT&G's Internal Carbon Price as of 2024

50,000 KRW/tCO_2eq

KT&G has demonstrated its strong commitment to reducing carbon emissions by setting an internal carbon price at 50,000 KRW/tCO_2eq. This is higher than both the recent emission trading market prices and the cumulative highest price of 42,000 KRW/tCO_2eq since the introduction of Korea's emission trading scheme. Through continuous monitoring, we will readjust the internal carbon price if the market price exceeds our price.

KT&G's new plant in Indonesia

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(C) INDIRECT MITIGATION AND ADAPTATION EFFORTS

Category	Content	Mitigation	Adaptation	Current	Anticipated
① Cooperation with outside organizations	• Participating in the Sustainable Tobacco Program (STP), an evaluation platform to assess and survey the social/environmental impact of the leaf tobacco supply chain jointly with major global tobacco manufacturers	●	●	●	●
② Supply chain support	• Supplying fuel reduction devices for driers to farms to improve energy efficiency during leaf tobacco drying – Supplied a cumulative total of 214 devices from 2022 to 2024	●		●	
	• Establishing a Green Impact Alliance with key materials partner companies[1)] – Establish joint GHG targets with key materials partner companies – Provide training support in relation to responding to climate change by holding a regular ESG workshop and consulting to build a GHG reduction foundation [1)] Partner companies that account for approximately 85–90% of the annual purchasing share – Provide support for training and consulting on ISO certification, etc.	●		●	●
	• Providing programs that facilitate carbon emissions reduction among logistics partner companies – Improvement of eco-friendly driving habits: Provide our company's products to drivers who have eco-friendly driving habits (ECO mileage: participated by a total of 89 vehicles from 5 partner companies) – Support the replacement of old vehicles (ECO Change: Partner companies with which we have a trade history of 7 years or more, supported replacement of 7 vehicles for recent 3 years)	●		●	●
	• Diagnosing energy-intensive utility specialist companies and establishing improvement plans	●	●	●	●

① COOPERATION WITH OUTSIDE ORGANIZATIONS: PARTICIPATION IN STP Eight global STP member companies including KT&G are conducting supplier's annual self-assessment based on risk analysis by country for eight areas, including climate change, water, crop, soil health, human and labor rights, livelihoods, and governance, and carrying out an in-depth assessment (IDA) by priority by selecting a third-party evaluation agency. Based on the results of a supply chain general risk assessment and self-assessment carried out from 2022 to 2024, we chose 16 suppliers in eight countries—the Philippines, Malawi, India, Zimbabwe, Thailand, Guatemala, Uganda, and Turkey—and carried out an IDA. We established an action plan for each supplier according to IDA results, and we are continually carrying out monitoring and supporting the execution of improvement measures.

In 2024, we enhanced the supply chain analysis tool and IDA method through in-person meetings among STP member companies and set a shared goal for 2027 to establish a sustainable leaf tobacco supply chain. Member companies also agreed to quantify ESG and country-level risks from 2024 to 2025 and identify key management risks.

RESULTS OF IDA IN THE CLIMATE CHANGE DOMAIN FROM 2022 TO 2024

Target company	Key IDA results	Supplier's response plan
India	Lack of performance in afforestation activities, insufficient sustainable resource management, and inadequate treatment of crop protection agents	Expand tree planting (eucalyptus) near agricultural reservoirs
Zimbabwe		Increase sustainable timber supply and monitor its usage
Guatemala		Enhance collaboration with local governments and municipalities in cultivation areas for forestation programs
Uganda		Promote self-afforestation, distribute seedlings to raise environmental awareness, provide educational materials, and conduct on-site monitoring

② SUPPLY CHAIN SUPPORT: ECO-CARGO PROGRAM KT&G has been making continuous efforts to enhance its ESG management capabilities through the ongoing operation of the ECO-Cargo Program (ECO Mileage, ECO Change, ECO Hydrogen) in order to meet societal demands for low-carbon green growth and the transition to an eco-friendly supply chain. Moving forward, we will strive to foster eco-friendly growth and practice symbiotic management with our partners through various ECO programs.

OPERATION STATUS OF ECO-CARGO PROGRAM

ECO Mileage	• Introduced in 2021, the ECO Mileage program aims to reduce carbon emissions and fuel usage through eco-friendly driving practices. KT&G has applied this program to 89 vehicles from five partner companies under transport contracts. Starting in 2024, KT&G has been operating a DTG (Digital Tacho Graph) monitoring system to measure driving scores. By providing feedback on economical driving and encouraging improvements in driving habits, the company contributes to reducing carbon emissions from trucks.
ECO Change	• KT&G reduces the environmental impact of transportation by supporting the replacement of old (over 10 years) trucks for partner companies with over seven years of transaction history with the company, as part of its commitment to practicing eco-friendly and win-win management. For vehicles selected for replacement, KT&G provides support of KRW 10 million for new vehicle replacements and KRW 5 million for replacements with used vehicles within the last three years. Over the past three years, the program has successfully supported the replacement of seven vehicles.
ECO Hydrogen Energy	• KT&G has been operating two hydrogen fuel cell electric trucks in collaboration with Daehan Express since October 2024. This initiative is expected to reduce annual carbon emissions by 144 tons compared to diesel freight vehicles. KT&G plans to expand the operation of hydrogen fuel cell electric trucks continuously.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(D) CLIMATE-RELATED TRANSITION PLAN

KT&G established and is implementing science-based targets that meet global standards to secure consistency with the Paris Agreement, which aims to limit the global temperature rise to below 2°C compared to pre-industrial levels. During the SBTi approval application process in 2022, we raised our reduction targets from well-below 2°C (Scope 1+2) and 2°C (Scope 3) scenarios to 1.5°C (Scope 1+2) and well-below 2°C (Scope 3) scenarios. In May 2024, we advanced our 2050 net-zero target to 2045 to take a leading role in global climate change and achieve sustainable growth. KT&G's 2045 Net-Zero Goal received official approval from SBTi in November 2024, thereby securing international confidence in its climate change response target.

Accordingly, KT&G is carrying out various reduction strategies and activities with the goal of realizing net zero across the overall business value chain by 2045. In particular, we support the global campaign RE100 (Renewable Electricity 100%), which aims to cover 100% of electricity usage with renewable energy, and we have set a target to achieve over 80% renewable energy usage of our total electricity consumption by 2030 and are systematically implementing the target. In addition, we are continuously advancing Scope 3 emissions measurements that are based on SBTi recommendations for objective verification of the mid- to long-term GHG reduction targets and outcomes. As of the end of 2024, Scope 3 emissions from the overall value chain of KT&G account for around 81% of total GHG emissions. In cooperation with leaf tobacco farms, we are striving to improve energy efficiency of the drying process. Also, by helping materials partner companies reduce GHG emissions, we aim to reduce Scope 3 emissions[1] by 25% compared to 2022 by 2030.

[1] Targets: Category 1, 3, 11

CLIMATE-RELATED MAJOR TRANSITION PLAN

1. Establishing SBTi-based GHG reduction targets	• 2030 emissions target – Scope 1+2 emissions: 42% reduction compared to 2020 – Scope 3 emissions: 25%[1] reduction compared to 2022 • Aim to achieve net zero of Scope 1+2+3 emissions by 2045
2. Setting renewable energy procurement targets that exceed RE100 guidelines	• 2030 renewable energy procurement target: 80% • Diversify renewable energy procurement – Expand internal photovoltaic power generation facilities – Long-term, stable renewable energy procurement by using PPA – Strategic adoption of I-REC in connection with overseas business site management plans
3. Optimizing energy usage and improving energy efficiency in internal processes	• Diagnose efficiency of considerable energy-consuming facilities and processes and make improvements • Improve steam boiler operation, apply an inverter control to air compressors, replace with high-efficiency utility facilities, introduce FEMS, etc.
4. Refinement of value chain GHG emissions inventory and support for reduction	• Establish reduction partnerships with partner companies in the value chain • Reduce energy consumption by restoring and reusing the heat generated from drying leaf tobacco
5. Conversion of business fleet to electric vehicles	• Convent all business fleets to EVs on the back of participation in the K-EV100 and expand the charging infrastructure

[1] Targets: Category 1, 3, 11

TRANSITION PLAN-RELATED MAJOR ASSUMPTIONS AND DEPENDENCY FACTORS

Major Assumptions	Dependency Factors
1. Assumed conditions for calculating estimated GHG emissions: Mid- to long-term production plans of KT&G and the Group subsidiaries	1. Availability of physical and human resources to implement the transition plan
2. Outlook on carbon credit price: Price based on IEA 2022 GECM Model STEPS	2. Regulations related to emission trading that could impact the rise in emission allowance prices
3. Inflation rate by country and annual electricity price increase rate	3. Domestic and overseas economic conditions that can impact the financial validity of the assumed conditions, including the inflation rate and electricity price increase rate
4. Execution of external renewable energy procurement, including PPA and I-REC	4. Installation of photovoltaic facilities at the Group subsidiaries and PPA contract conditions

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

3. STRATEGY AND DECISION-MAKING

(1) Response and Plans for Climate-related Risks and Opportunities

GHG EMISSIONS TARGET KT&G Group set a goal of reducing Scope 1+2 emissions by 42% (compared to 2020) and reducing Scope 3 emissions by 25%[1] (compared to 2022) by 2030. We plan to realize net zero across the entire business value chain by 2045.

[1] Targets: Category 1, 3, 11

MAJOR REDUCTION MEASURES AND IMPLEMENTATION PLAN

Category	Action plans
Expand internal solar power generation facilities	• Operating photovoltaic facilities at major business sites starting in 2023, thereby achieving 8% of the reduction portfolio by 2030
Switch to high-efficiency facilities	• Diagnosing and improving efficiency of considerable energy-consuming facilities and processes, thereby achieving cumulative reduction of 408,000 tCO_2eq by 2030
PPA and I-REC purchasing	• Adopt PPA: Aiming at cumulative emissions reduction of around 237,500 tCO_2eq by 2030 by expanding renewable energy procurement by actively using PPA starting from 2023 • I-REC purchasing: Targeting overseas business sites since it is easy to procure external renewable energy credits
Reduction activities in the supply chain	• Cooperation with farms: Collaborating with leaf tobacco farms to improve energy efficiency in the leaf tobacco drying process • Support partner companies: Establishing support measures and building a cooperation system to help materials partner companies reduce GHG emissions

(2) Resource Acquisition Plan

KT&G issued green bonds worth a total of KRW 170 billion in April and October 2024 and the funds that were raised are being invested in projects aimed at transitioning to net zero, such as renewable energy (photovoltaic facility) and eco-friendly building construction projects. In addition, we adopted internal carbon pricing to consider potential carbon costs when making investment decisions and to use it as guidelines for investment activities for climate change response. This is reflected as a criterion of economic analysis when reviewing investment feasibility to facilitate the effect of reducing the payback period of climate change response activities. In addition, we analyze economic feasibility of each reduction measure through marginal abatement cost curve (MACC) analysis and first adopt cost-effective measures, and are establishing annual reduction plans that consecutively applies measures with high reduction potential over the mid- to long term. Furthermore, we additionally hired relevant personnel since 2023 to operate a professional climate change organization to effectively implement the reduction plan. By doing so, we are systematically performing such tasks as establishing a GHG reduction plan, reducing emissions, and carrying out monitoring, and continually strengthening our climate change response capabilities.

In addition, we are striving to increase use of renewable energy and reduce electric power cost burden by participating in various government support projects. We are taking part in the "project to support the transmission/distribution network usage fee of electric power purchase agreements (PPA network usage fee support project)" that is organized by the Korea Energy Agency, through which we are receiving partial support for transmission/distribution network usage fees that arise when signing a PPA with a renewable energy power producer, thereby easing the burden of costs from adopting renewable energy. In case of KT&G SangSang Madang, we are expanding photovoltaic facility investments in a phased manner through the renewable energy dissemination (photovoltaic) support project that is organized by the Korea Energy Agency. In 2023, a project to install a 68.4 kW solar power system at the SangSangMadang Nonsan Art Building was selected, with a total project cost of KRW 110.49 million, receiving a subsidy of KRW 66.77 million. In 2024, we promoted a project to install a 45.6 kW solar power system at the SangSangMadang Chuncheon Stay Building, securing a subsidy of KRW 39.78 million out of a total project cost of KRW 64.33 million.

(3) Quantitative and Qualitative Information on the Progress of Plans Disclosed in Past Reporting Periods

KT&G aims to achieve a 42% reduction in Scope 1 and 2 emissions, a 25% reduction in Scope 3 emissions compared to 2020, and carbon neutrality by 2045. For detailed progress, please refer to "2. Climate-Related Targets – (3) Performance Analysis Against Targets" under the "Metrics and Targets."

(4) Trade-offs Associated with Climate-related Risks and Opportunities

KT&G is moving forward with phased adoption of renewable energy (photovoltaic, PPA, REC purchasing, etc.) and transition to high-efficiency facilities to achieve its mid- to long-term GHG reduction target. Each activity provides an opportunity, which is to reduce GHG emissions, while also accompanying potential risks, which are initial investment costs and operating costs. To reasonably adjust conflicting interests between these factors, we are deciding the priority of business based on diverse evaluation criteria, such as cost-benefit analysis, GHG reduction effects, and investment payback period.

For the transition to high-efficiency equipment, the long-term reduction effects are significant. Therefore, an investment plan is established annually, and the feasibility and expected benefits are comprehensively reviewed in consultation with relevant departments before deciding whether to proceed. We are also simultaneously considering economic and environmental aspects for transitioning to renewable energy. We choose, with priority, measures that have a high level of cost efficiency compared to reduction effects, among various methods such as photovoltaic installation, PPA, and REC purchasing, and establish and implement an annual execution plan in a phased manner based on an investment plan for each agenda item.

Through such a systematic evaluation and decision-making process, we are minimizing environmental risks while moving forward with sustainable energy transition.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

4. FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW

(I) Financial Impact of Climate Change During Reporting Period (Current)

KT&G internally defined climate-related activities that could have significant impacts on financial position and financial performance as follows, and analyzed the financial impact pathways for each activity.

Category		Risk/Opportunity	Financial impact pathways	Accounts expected to be financially impacted
Transition Risks	Policy and Legal	Carbon pricing	Increase in direct and indirect operating costs due to renewable energy procurement, such as transaction fees and network usage fees	Utilities expenses
			Costs incurred for purchasing emission allowances to comply with the domestic emissions trading scheme	Taxes and dues
			Increase in infrastructure operating costs to reduce/manage GHG emissions from facilities and projects	Repairs and maintenance expenses Service fees
			Costs incurred for the use of EVs, such as EV charging costs	Vehicle expenses
			Increase in property, plant, and equipment due to GHG reduction activities such as equipment replacement, EV transition, and solar panel installation	Property, plant, and equipment Depreciation expenses
			Issuance of green bonds for financing investments in GHG reduction and climate change adaptation projects	Borrowings Interest expenses
	Reputation	Prejudice against the industry	Costs incurred to reduce the negative perception of tobacco and contribute to mitigating climate change from a product lifecycle perspective	Research and development expenses Taxes and dues Service fees
			Increase in capital expenditures due to the development of low-carbon products and expansion of technological investments	Property, plant, and equipment
		Increased stakeholder concern or negative perceptions	Costs incurred to enhance the company's external credibility and efficiency in responding to climate change (e.g., certifications, inspections, outsourcing services, etc.)	Training expenses Service fees
Physical Risks	Acute	Typhoons and hurricanes Heavy rainfalls and floods	Costs incurred to prevent damages from natural disasters caused by extreme weather events	Insurance expenses Supplies expenses Repairs and maintenance expenses Service fees
			Capital expenditures incurred for the expansion of facilities/systems to prevent natural disasters caused by extreme weather events	Property, plant, and equipment
Opportunities	Resource Efficiency	Reduced operating costs through expansion of low-carbon and renewable energy facilities	Decrease in energy purchasing costs (manufacturing expenses) on the back of reduced energy consumption through the transition to renewable energy and replacement with high-efficiency facilities	Utilities expenses

* The financial figures included in this report have been classified based on an internal assessment of the extent to which the strategies—that are being implemented by the consolidated entities—mitigate climate-related risks or align with opportunity factors, referring to the guidelines established by the Korea Sustainability Standards Board (KSSB). The assessment system is currently being enhanced, and the classification criteria and data estimation methods may be subject to change depending on the confirmation of relevant policies in the future. This material has been prepared in anticipation of the potential mandatory disclosure requirements, and thus please take this into consideration when referencing its contents.

** According to the result of the risk and opportunity analysis on the aforementioned items, it is judged that they may impact the consolidated financial statements in the short and long term. However, at this point in time, there are limitations in securing relevant data and estimating investment costs, which pose constraints on quantitatively calculating the financial impact. The consolidated entities plan to systematically manage related risks and opportunities by enhancing their future data management system and refining analysis processes to calculate the impact of the relevant items more accurately.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(2) Risks That May Lead to Significant Adjustments to Assets and Liabilities

As of the end of the reporting period, the consolidated entities cannot identify any financial impacts of risks or opportunities anticipated to cause significant adjustments in the next fiscal year due to the uncertainty of key assumptions related to climate-related risks or opportunity factors.

FINANCING PLAN BY TIME HORIZONS Details regarding financing for strategy execution can be found in the "3. Strategy and Decision-making – (2) Resource Acquisition Plan" under the "Strategy."

(3) Anticipated Financial Impacts of Climate Change

Classification		Risk/Opportunity	Financial impact pathways	Accounts expected to be financially impacted
Transition Risks	Policy and Legal	Carbon pricing	Increase in direct and indirect operating costs due to renewable energy procurement, such as transaction costs and grid usage fees network usage fees	Utilities expenses
			Costs incurred for purchasing emission allowances to comply with the domestic emissions trading scheme	Taxes and dues
			Increase in infrastructure operating costs to reduce/manage GHG emissions from facilities and business sites	Service fees
			Costs incurred for the use of EVs, such as EV charging costs	Vehicle expenses
			Costs incurred for EV leasing	Rent expenses
			Increase in property, plant, and equipment due to GHG reduction activities such as equipment replacement, EV transition, and solar panel installation	Property, plant, and equipment Depreciation expense
			Issuance of green bonds for financing investments in GHG reduction and climate change adaptation projects	Borrowings Interest expenses
	Reputation	Prejudice against the industry	Increase in capital expenditures due to the development of low-carbon products and expansion of technological investments	Depreciation expenses
Opportunities	Resource Efficiency	Reduced operating costs through expansion of low-carbon and renewable energy facilities	Decrease in energy purchasing costs (manufacturing expenses) on the back of reduced energy consumption through the transition to renewable energy and replacement with high-efficiency facilities	Utilities expenses
			Additional revenue generation through the sale of surplus electricity after self-use of solar power and PPA	Non-operating income

* The financial figures included in this report have been classified based on an internal assessment of the extent to which the strategies—that are being implemented by the consolidated entities—mitigate climate-related risks or align with opportunity factors, referring to the guidelines established by the Korea Sustainability Standards Board (KSSB). The assessment system is currently being enhanced, and the classification criteria and data estimation methods may be subject to change depending on the confirmation of relevant policies in the future. This material has been prepared in anticipation of the potential mandatory disclosure requirements, and thus please take this into consideration when referencing its contents.

** According to the result of the risk and opportunity analysis on the aforementioned items, it is judged that they may impact the consolidated financial statements in the short and long term. However, at this point in time, there are limitations in securing relevant data and estimating investment costs, which pose constraints on quantitatively calculating the financial impact. The consolidated entities plan to systematically manage related risks and opportunities by enhancing their future data management system and refining analysis processes to calculate the impact of the relevant items more accurately.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

5. CLIMATE RESILIENCE

(I) Implications of Company Assessment on Strategy and Business Model

KT&G conducts scenario analysis by reflecting valid scenario context, including physical climate environment change, policy change, socio-economic change, and market and technology change, based on open, usable climate change scenarios presented by the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA).

(A) SCENARIO ANALYSIS AND IMPACT ASSESSMENT OF TRANSITION RISKS

SCOPE OF ANALYSIS KT&G and the Group subsidiaries (KGC, Yungjin Pharm, Tae-A Industrial, COSMOCOS, KGCYebon)

KT&G chose risks caused by the carbon pricing system in consideration of calculability of financial impact and materiality of climate change risks from among various transition risks stemming from climate change, and estimated relevant financial impact. Risk assessment results through climate change scenario analysis indicate that risk levels from the carbon pricing system are the highest in 2030 in the 1.5˚C scenario (IEA NZE 2050), and it was confirmed that a certain degree of mitigation occurs as emissions decrease from long-term perspective by 2050. In addition, risks from the carbon pricing system are shown to have the highest risk level from among the chosen 13 transition risks.

Emissions trading price in Korea demonstrates high volatility, leading to significant price uncertainty. In particular, as the nation's carbon neutrality roadmap and policy trajectory are expected to reduce the overall emission allowance, factors driving the increase in emission trading prices are anticipated to prevail, thereby amplifying potential fiscal risks. In the IEA NZE 2050 scenario that assumes significant transition risks, carbon prices are forecast to be set at around USD 140 in 2030, reflecting the possibility of further expansion of financial impact from carbon prices.

The tobacco industry uses energy in the manufacturing and distribution process. In particular, carbon prices from considerable energy consumption in the logistics and shipping processes owing to a global supply chain may transfer to the unit cost of shipping. The carbon pricing system may increase such potential and indirect operational costs, thus bringing about financial risks.

With an understanding of uncertainties caused by various variables that impact carbon prices and to control extensive assumptions, KT&G conducted calculations based on global carbon prices presented by scenarios as well as its GHG reduction target emissions.

IDENTIFIED IMPACT: FINANCIAL IMPACT EXPOSED BY CARBON PRICING

(Cumulative by period)[1)]

Category	Less than KRW 5 billion	Less than KRW 10 billion	Less than KRW 20 billion	Less than KRW 30 billion	Less than KRW 40 billion
Scenario	**Time Period**				
	2025		**2026-2027**		**2028-2030**
NZE					
APS					
STEPS					

[1)] KT&G understands the uncertainties caused by various variables that impact carbon prices and measured the carbon pricing system's financial impact by applying the global carbon price per scenario that is provided by the IEA to control broad assumptions. This is an estimated value that is based on scenario analysis and may be different from the actual price.

IMPLICATIONS OF COMPANY ASSESSMENT FOR ITS STRATEGY AND BUSINESS MODEL

1. Responding to carbon costs and regulations	• **Carbon cost management:** As policies become stronger for the transition to low carbon, there is a need for a strategy that prepares for increased costs, resulting from carbon price increases and strengthening of relevant regulations. The company should curtail costs through efficient carbon management strategy and achieve carbon emission reduction targets. • **Regulatory change response:** There is a need to establish a system that enables prompt responses to new regulations related to GHG emissions. To this end, there is a need for continued monitoring of policy changes and the establishment of a response plan.
2. Market and reputation management	• **Reputation risk:** Insufficient responses to climate change may lead to loss of market and consumer trust. As such, the company must transparently disclose sustainability-related activities and carry out active climate change response activities to maintain a positive corporate image. • **Market change response:** As the transition to a low-carbon economy accelerates, there is a high likelihood that market conditions will change. The company must establish a business model that can flexibly respond to this change.
3. Raw material cost management	• **Raw material cost fluctuation:** There is a need to strengthen supply chain management strategy in preparation for raw material cost increases with the transition to low carbon. Strategies to address cost increases should be established through diversification of raw materials and efficient usage measures.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(B) SCENARIO ANALYSIS AND IMPACT ASSESSMENT OF PHYSICAL RISKS

SCOPE OF ANALYSIS 19 major business sites in Korea and abroad of KT&G and the Group subsidiaries

For a more accurate and detailed evaluation of physical risk's financial impact, KT&G used S&P's Climanomics® analysis tool. For this analysis, we assessed the potential impact of physical risk for each facility based on KT&G's major production facilities' and supply chain's location information, according to diverse climate change scenarios. For physical risks, scenario analysis from the 2020s to the 2040s was conducted in 10-year increments, considering the characteristics of long-term climate data predicted based on climate modeling.

S&P's Climanomics® estimates financial losses from climate change through model average annual loss (MAAL). MAAL is an index that covers diverse financial losses, such as an increase in operation costs, expansion of capital expenditures, and reduction in profits, that are expected to arise during a designated period. The physical risk that was subject to analysis consisted of 8 items, including cyclone, flood, temperature change, and wildfire.

KT&G analyzed the financial impacts of physical risks under three climate change scenarios (SSP1-2.6, SSP2-4.5, SSP5-8.5) during the period from the 2020s to the 2040s (2020–2049). The analysis revealed that the effects of extreme temperatures during the closest period, the 2020s, were most prominent in the upstream stage, particularly during the raw material production process.

KT&G's primary raw materials, tobacco leaves and ginseng, are rooted in agriculture. Due to the nature of the industry, they are directly affected by extreme temperature phenomena such as heatwaves, cold waves, abnormal high temperatures, and abnormal low temperatures. These extreme temperatures alter weather patterns and crop growing seasons, fundamentally impacting the productivity and quality of agricultural raw materials, such as leaf tobacco, which in turn may reduce the availability of raw materials and lead to changes in cost structures. Therefore, the physical risks faced by businesses tend to increase in proportion to the intensity of climate change. Analysis shows that under the negative climate scenario (SSP5-8.5), where GHG emissions intensify, the frequency and intensity of extreme temperature events increase, leading to greater financial losses compared to the positive climate change scenario (SSP1-3.6).

FINANCIAL IMPACT OF PHYSICAL RISK

(Unit: Modelled average annual loss (%))[1)]

Scenario/Period	2020s	2030s	2040s
Low (SSP1-2.6)	1.3	1.8	2.2
Mid (SSP2-4.5)	1.2	1.8	2.1
High (SSP5-8.5)	1.3	2.0	2.7

[1)] KT&G estimated financial impact of climate change by using S&P's Climanomics® analysis tool. S&P's Climanomics® calculates the sum of estimated financial loss that may arise from climate change through modelled average annual loss (MAAL) which is indicated in a relative percentage of asset value.

IMPLICATIONS OF COMPANY ASSESSMENT FOR ITS STRATEGY AND BUSINESS MODEL

1. Disaster response and recovery plan	• **Disaster response:** Rapid response and recovery plans are necessary to address acute disasters such as typhoons and floods caused by climate change. Measures, such as alternative production plans and emergency response training, should be implemented to ensure the safety of employees and business sites. • **Emergency response system:** There is a need to establish an emergency response system that enables prompt responses in the event of a disaster and to strengthen preparedness through regular training and simulations.
2. Facility and infrastructure investment	• **Flood prevention facilities:** To protect production facilities from heavy rain and floods, there is a need to invest in infrastructure, such as the installation of flood prevention facilities and berms and enhancement of drainage systems. Physical risk must be minimized through these investments. • **Facility enhancement:** To reduce physical risks, it is essential to strengthen the infrastructure of key business sites and reinforce facilities to minimize damage in case of a disaster.
3. Continuous monitoring and prevention	• **Climate change monitoring:** Potential hazards must be identified and addressed in advance through continuous and periodic monitoring of gradual physical risks such as temperature changes and water stress. • **Preventive measures:** Proactive measures should be established to prevent physical risks, and strategies to minimize the impacts of climate change must be continuously developed.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(C) AREAS OF SIGNIFICANT UNCERTAINTY CONSIDERED IN THE ASSESSMENT OF CLIMATE RESILIENCE

Category	Definition	Uncertainty
Carbon cost	Future carbon price announced by the IEA scenario	Each country's carbon-related price volatility
Electricity bill	Industrial electricity bill	Possibility of electricity bill hike
Charged allocation ratio	National allowance allocation plan for plan period	Possibility of a decrease in the free allocation ratio
Price of energy sources	Prices of industrial electricity, LPG, and LNG	Normalization of electricity rates, price volatility of major energy sources caused by disputes and wars triggered by global geopolitical risks
Climate model	IPCC's climate change forecast model	Climate system complexity and limitations in forecasts result in inherent uncertainty with regard to climate change's pathway and impact
Financial loss model	Relationship model between financial losses from physical risks	Possible occurrence of discrepancies in actual financial impacts due to simplification and assumption in financial modeling

(D) CAPABILITY TO ADJUST AND ADAPT STRATEGIES AND BUSINESS MODELS TO CLIMATE CHANGE OVER TIME HORIZONS

AVAILABILITY AND FLEXIBILITY OF FINANCIAL RESOURCES KT&G issued KRW 170 billion worth of green bonds in April and October 2024 and have been allocating the entire proceeds to projects aimed at transitioning to carbon neutrality, such as renewable energy (solar power facilities) and eco-friendly building construction. Notably, Korean 25.1 billion has been raised specifically for solar power installation, which is being utilized as a resource for KT&G's climate-related risks and opportunities.

AVAILABILITY AND FLEXIBILITY OF ASSETS KT&G has installed an uninterruptible power supply to ensure business continuity in response to risks of power outages. Additionally, the company maximizes operational efficiency of its energy assets by monitoring real-time electricity usage through a centralized monitoring system. Furthermore, KT&G aims to achieve an 80% renewable energy usage goal by 2030. To this end, the company is analyzing the economic feasibility of various renewable energy procurement options and leveraging multiple implementation methods to ensure flexibility in energy source transition. In addition, KT&G is maximizing the availability of existing assets by improving the energy efficiency of manufacturing facilities, while strengthening the climate adaptation capabilities of future assets through high-efficiency technology development driven by R&D innovation.

CLIMATE RESILIENCE ASSESSMENT KT&G and its consolidated entities are expected to significantly mitigate the financial impacts related to the transition risk of carbon pricing if they implement mitigation measures in line with the Science-Based Targets for GHG reduction guidelines and achieve carbon neutrality goal by 2045. In particular, as a result of pursuing an economic analysis of renewable energy procurement options to adapt to climate-related changes or uncertainties, as well as transitioning to renewable energy using various implementation measures, KT&G and its consolidated entities are deemed to possess strong climate resilience in terms of factors such as reduced electricity costs and decreased carbon credit purchase expenses.

CURRENT OR PLANNED INVESTMENTS AND ACTIVITIES

Category	Factors	Detailed information
Transition risk	Policy and legal	• KT&G is designated as a company subject to the emissions trading scheme and must address the need for policy measures aligned with the national carbon neutrality roadmap. The company is also required to mitigate potential financial risks from increased allowance prices due to future reductions in permitted emissions. KT&G therefore invests in areas such as energy efficiency improvement and the expansion of renewable energy usage. • Discuss on reducing GHG emissions through collaboration with supply chain partners
	Market	• Expand sustainable management practices, such as improving facility efficiency during procurement, reducing carbon footprint, and improving water efficiency, through close cooperation with farms and suppliers • Establish a cooperation system with key materials partner companies and participate in and use the Sustainable Tobacco Program (STP), which is a tobacco industry initiative
	Energy source	• Expand renewable energy procurement through various methods, including expanding photovoltaic power generation facilities in business sites, signing PPAs, and purchasing REC
Physical risk	Heavy rain	• Invest in flood prevention facilities, flood barriers, and enhance drainage systems to protect production facilities in case of heavy rain and flooding near business locations • Secure employee safety and business sites' operational continuity through an emergency measure plan that includes a prompt evacuation plan in the event of a disaster, alternative production plan, and emergency response training.
	Temperature change	• Conduct continued, periodic monitoring of business sites' energy usage patterns, etc. resulting from temperature changes and changes in water resource stress levels of major business sites
	Water shortage	• Participate in key initiatives to promote sustainable practices, continuous monitoring, and a virtuous cycle of improvement, ensuring sustainability from a mid- to long-term perspective to proactively address water scarcity issues

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

(2) Climate-related Scenario Analysis Method

(A) INFORMATION ON THE INPUTS USED BY THE COMPANY

Scenario		Definition	Reason for decision	Time Period	Source	Business scope
Transition	NZE	Scenario for the global energy sector to achieve net zero in CO_2 emissions by 2050	Considering KT&G's focus on net-zero emission pathways and transition risks, we concluded that the IEA's NZE 2050 scenario, which aims for a 1.5°C transition to achieve net zero by 2050, is most suitable for KT&G.	- 2050	IEA World Energy Outlook	KT&G and the Group subsidiaries (KGC, Yungjin Pharm, Tae-A Industrial, COSMOCOS, KGCYebon)
	APS	Scenario that assumes that all climate promises made by governments across the globe, including the Nationally Determined Contribution (NDC) and long-term net-zero goals, will be met completely and in a timely manner				
	STEPS	Scenario that reflects current policy setting based on an evaluation by area of specific policies that are currently being implemented and those announced by governments				
Physical	SSP1-2.6	Scenario that assumes GHG reduction through strong climate policies and extensive adoption of renewable energy. Scenario in which the global community cooperates to actively respond to climate change and the temperature increase is restrained to 2°C or less by 2100	IPCC is a climate change research organization that is globally recognized. The Shared Socioeconomic Pathways (SSP) scenario was developed after extensive scientific research and verification. This scenario is based on the latest climate models and data and guarantees scientific validity and credibility. For this reason, we concluded that it would be most appropriate for KT&G's climate change scenario analysis.	- 2050	IPCC	19 major business sites and 11 major supply chain sites in Korea and abroad
	SSP2-4.5	Scenario where current policy trends are maintained, and moderate efforts for GHG reduction are reflected. Scenario in which some renewable energy is utilized, but fossil fuels continue to be used, leading to a global temperature increase exceeding 2°C				
	SSP5-8.5	Scenario in which GHG emissions sharply increase, and continued use of fossil fuels and low-level climate change responses lead to a more than 4°C rise in the earth's temperature				

(B) MAJOR ASSUMPTIONS OF THE COMPANY USED FOR ANALYSIS

Major assumptions that were used in the climate change scenario analysis process were applied to various areas, including policy, energy, legal issues, technology, market, and reputation, and carbon price, energy intensity per GDP, the level of technological development of CCUS and ESS, unit price of renewable energy sources, and EV and hydrogen economy technology costs, etc. were used as major parameters.

Detailed assumptions of each scenario are as follows:

1.5°C SCENARIO This scenario assumes an immediate global transition to a carbon-neutral economy and limits global warming to 1.5°C in accordance with the Paris Agreement. Cooperative efforts and action take place to reduce emissions, and global cooperation for net zero leads to execution of key measures. The carbon price was set as USD 50 for 2025, USD 140 for 2030, and USD 250 for 2050.

2.0°C SCENARIO In this scenario, policies are executed to achieve the emissions reduction target of each country that was declared. However, more advanced policies are not implemented and therefore a temperature increase of more than 2.0°C is applied. Although relatively gradual and continued policy execution takes place, physical risk's occurrence frequency and impact are shown somewhat clearly. The carbon price was set as USD 45 for 2025, USD 135 for 2030, and USD 200 for 2050.

4.0°C SCENARIO This scenario's premise is a temperature increase of more than 4.0°C by considering only the effects of current policies and action. Policy measures that can trigger transition risk are not implemented, resulting in a relatively low transition risk. However, physical risk stemming from climate change frequently occurs and becomes more extreme. The carbon price was set as USD 31 for 2025, USD 42 for 2030, and USD 89 for 2050.

(C) REPORTING PERIOD FOR CLIMATE-RELATED SCENARIO ANALYSIS

KT&G utilized the results of the 2023 scenario analysis for resilience evaluation during the reporting period.

GOVERNANCE 01
STRATEGY 02
CLIMATE-RELATED RISKS AND OPPORTUNITIES AND TYPES
BUSINESS MODEL AND VALUE CHAIN
STRATEGY AND DECISION-MAKING
FINANCIAL POSITION, FINANCIAL PERFORMANCE, AND CASH FLOW
CLIMATE RESILIENCE
RISK MANAGEMENT 03
METRICS AND TARGETS 04

RISK MANAGEMENT

1. CLIMATE-RELATED RISK AND OPPORTUNITY MANAGEMENT PROCESS

(1) Inputs and Parameters

The scope of scenario analysis includes the locations of KT&G's major domestic and overseas business sites and key supply chains.

Category	Item	Contents
Inputs	Financial information of business sites	Book value of assets by business site, etc.
	Locations of business sites	19 major domestic and overseas business sites and 11 key supply chain locations
	GHG emissions (Scope 1, 2) and energy consumption	* For detailed information, refer to "Metrics and Targets: Greenhouse Gas"
Parameters	Business expansion strategy	Mid-to long-term growth strategies and other corporate management strategies
	Climate-related strategy of the company	* For detailed information, refer to "Strategy: Strategy and Decision-making"
	NZE, APS, STEPS scenario data	IEA World Energy Outlook
	SSP1-2.6, SSP2-4.5, SSP5-8.5 scenario data	IPCC
	Trends in laws and regulations related to domestic GHG emissions	Ministry of Environment, Ministry of Trade, Industry and Energy

(2) Identification of Climate-related Risks and Opportunities

KT&G uses climate-related scenario analysis in the process of identifying climate-related risks and opportunities. Scenario analysis includes potential, diverse future change factors, through which we can identify and evaluate what kind of influence these factors have on the company. Based on the SSP1-2.6, SSP2-4.5, and SSP5-8.5 scenarios presented in the IPCC 6th Assessment Report (AR6), we confirmed environmental changes, including average temperature increase, sea level rise, and precipitation pattern changes, based on a period range, and considered socio-economic changes, such as low-carbon society-related regulation changes and demand changes, based on a period range using the International Energy Agency(IEA)'s NZE, APS, and STEPS scenarios. Also, by comprehensively considering the geographical characteristics of each business site's location and asset value, we identified the connection between each risk and opportunity and our company to identify and evaluate climate-related risks and opportunities that are related to KT&G.

(3) Assessment of Climate-related Risks and Opportunities

When assessing climate-related risks and opportunities, we break down and categorize them into transition risk (policy and legal, market, reputation), physical risk (acute, chronic), and opportunity (product and service, resource efficiency, resilience) according to the characteristics of each risk and opportunity. Since 2024, we have been determining materiality by developing a criterion that can quantitatively evaluate the likelihood and level of impact of each risk and opportunity. For physical and transition risks, we determine the financial impact from the short-, mid-, and long-term perspective per scenario, based on which we establish response strategies to manage risks and enhance resilience. In addition, the analysis is enhanced by incorporating the insights of external expert panels comprising investment analysts, professors, and consultants, and internal evaluations from company employees.

Assessment method	Details
Qualitative assessment	• Assessment of sensitivity and exposure related to risks/opportunities Assess the sensitivity and exposure of KT&G's business and management activities to climate-related risks and opportunities based on climate change scenarios presented by IEA and IPCC
Quantitative assessment	• Assessment of materiality related to risks/opportunities Assess the materiality of climate-related risks and opportunities using quantitative criteria that classify the likelihood and impact as low, medium, and high (1) Likelihood: Assess the anticipated timing of the actual occurrence of climate-related risks and opportunities, categorized as short-term, medium-term, or long-term (2) Impact: Assess the financial impact (average annual monetary scale such as revenue and costs) and the strategic impact on management (budget, workforce, production activities, etc.) separately. • Financial impact assessment of physical risks Assess the financial impact caused by physical climate changes using S&P's Climanomics® analysis methodology. • Financial impact assessment of transition risks Assess the financial impact of carbon pricing schemes based on scenarios set by the IEA

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
CLIMATE-RELATED RISK AND OPPORTUNITY MANAGEMENT PROCESS
INTEGRATION WITH THE ENTERPRISE RISK MANAGEMENT SYSTEM
METRICS AND TARGETS 04

(4) Prioritization of Climate-related Risks and Opportunities

KT&G categorizes risk factors into financial impacts and non-financial risk factors when identifying and assessing company-wide risks, and applies assessment criteria that comprehensively consider the likelihood and impact of each risk. The 2024 assessment results indicated that the impact and likelihood of climate risks were low. However, recognizing the possibility of the scope and frequency of transition and physical risks due to climate change intensifying or accelerating, they were categorized as potential risks. We monitor risk factors and impacts such as potential damage to leaf tobacco cultivation areas, reduction in raw material production, and increased procurement costs due to climate change, based on which we are establishing and implementing mitigation plans accordingly.

(5) Monitoring of Climate-related Risks and Opportunities

The ESG Management Office closely monitors significant internal and external changes through regular processes for identifying and assessing climate-related risks and opportunities. To this end, we continuously assess the validity of risks and opportunities by comprehensively considering the direction and implementation levels of climate and energy policies, GHG emissions trends, and carbon pricing. Additionally, we monitor climate-related risks and opportunities by incorporating climate-related KPIs into the compensation systems of the CEO, relevant division executives, and the organization. This allows us to assess the level of strategy implementation and progress toward goals regarding climate-related risks and opportunities. For detailed information on the compensation system and progress monitoring of goals, please refer to the "Metrics and Targets." Based on the monitoring results, we report relevant issues and corresponding response statuses to the Sustainability Committee and management, on a regular basis, according to the importance of the matters. Through this process, we have established and are operating a reporting system that ensures key monitoring outcomes are included in the oversight of ESG and climate-related risks and opportunities.

(6) Changes in the Risk Management Process

Change	Content
Addition of identification and assessment methods	Conducting materiality assessment of climate-related risks and opportunities

2. INTEGRATION WITH THE ENTERPRISE RISK MANAGEMENT SYSTEM

KT&G operates climate-related risk and opportunity identification, assessment, priority-setting, and monitoring process by integrating it to the company-wide risk management system. Climate-related risks and opportunities have characteristics that are distinctive from those of other risks in several aspects, including long-term impact, possibility of regulation change, and reputation, and therefore require analysis from various perspectives. Accordingly, we conduct an additional analysis by performing a double materiality assessment when identifying and evaluating non-financial material issues. Internally, we evaluate climate risk's and opportunity's financial impact and likelihood through climate scenario analysis. Externally, we identify climate issues' social/environmental impact and level of stakeholder interest through stakeholder surveys. We combine internal analysis and external survey results to calculate the materiality score of each sustainability issue, including climate, based on which we determine priority. Our double materiality assessment is operated based on integration with the company-wide risk management system, and assessment results may be used for the company's strategy-establishing and major decision-making process. In consideration of the assessment's importance, we are raising the assessment's credibility by receiving verification from an independent third-party organization to secure objectivity of the assessment process and validity and credibility of the results.

We identify potential risk factors that may arise across our management practices and conduct reviews of these risk factors more than twice annually to proactively prevent them. In addition to enterprise-wide risk monitoring through systems, such as the Controller System, we are establishing an integrated management framework to address both financial and non-financial risks.

Additionally, KT&G monitors the status of enterprise risk management through the Audit Committee, which consists entirely of outside directors, and conducts independent internal audits on ESG management initiatives through the audit planning office under the Audit Committee. The results of internal audits are reported to the Audit Committee and management, and within one month after the notification of audit results, the relevant department submits an improvement plan addressing the audit findings to the audit planning office. The audit planning office periodically checks the execution status of actions taken on audit findings and reports the results to the Audit Committee annually. The selection of internal audit topics and the determination of audit scope are carried out through the audit planning office's own risk assessment during the annual audit planning process, comprehensively considering opportunities, risks, and regulatory changes.

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
CLIMATE-RELATED RISK AND OPPORTUNITY MANAGEMENT PROCESS
INTEGRATION WITH THE ENTERPRISE RISK MANAGEMENT SYSTEM
METRICS AND TARGETS 04

METRICS AND TARGETS

1. CLIMATE-RELATED METRICS

(I) Greenhouse Gas

(A) ABSOLUTE TOTAL EMISSIONS (MARKET-BASED)[1),2)]

(Unit: tCO_2eq)

Category	2023	2024
Scope 1[3)]	72,087	68,330
Scope 2[3)]	113,585	114,088
Scope 3[4)]	516,237	780,502
Total	701,909	962,920

[1)] Verification status: Third-party verification completed within the scope of aggregation (based on GHG data management and collection, emissions calculation, and reporting processes)
[2)] Verification principle: ISO 14064-1:2018(WRI/WBCSD GHG Protocol:2004, Corporate Value Chain (Scope 3) Accounting and Reporting Standard
[3)] Scope of aggregation: All domestic business sites—138 buildings including manufacturing sites (Daejeon Plant 1 and 2, Yeongju Plant, Gwangju Plant, etc.), other leased buildings, branches, offices, etc.—and overseas manufacturing sites of KT&G; and domestic and overseas manufacturing sites of subsidiaries
[4)] Scope of aggregation: KT&G and its subsidiaries (KGC, Yungjin Pharm, Tae-A Industrial, COSMOCOS, KGCYebon)

SCOPE 1 GHG EMISSIONS

(Unit: tCO_2eq)

Category	2023	2024
Scope 1[1)]	72,087	68,330

[1)] Scope of aggregation: All domestic business sites—138 buildings including manufacturing sites (Daejeon Plant 1 and 2, Yeongju Plant, Gwangju Plant, etc.), other leased buildings, branches, offices, etc.—and overseas manufacturing sites of KT&G; and domestic and overseas manufacturing sites of subsidiaries

SCOPE 2 GHG EMISSIONS

(Unit: tCO_2eq)

Category	2023	2024
Scope 2[1)]	113,585	114,088

[1)] Scope of aggregation: All domestic business sites—138 buildings including manufacturing sites (Daejeon Plant 1 and 2, Yeongju Plant, Gwangju Plant, etc.), other leased buildings, branches, offices, etc.—and overseas manufacturing sites of KT&G; and domestic and overseas manufacturing sites of subsidiaries

SCOPE 3 GHG EMISSIONS

(Unit: tCO_2eq)

Category	2023	2024
Scope 3[1)]	516,237	780,502[2)]
C1 Purchased goods and services	224,444	215,456
C2 Capital goods	103,537	36,826
C3 Fuel- and energy-related activities	23,423	28,078
C4 Upstream transportation and distribution	19,190	19,225
C5 Waste generated in operations	4,602	3,933
C6 Business travel	3,453	3,896
C7 Employee commuting	11,822	11,913
C8 Upstream leased assets	696	333
C9 Downstream transportation and distribution	10,903	5,890
C10 Processing of sold products	1,069	1,080
C11 Use of sold products	57,830	370,835
C12 End-of-life treatment of sold products	40,275	56,864
C13 Downstream leased assets	1,347	1,175
C14 Franchises	3,687	3,680
C15 Investments	9,961	21,318

[1)] Scope of aggregation: KT&G and its subsidiaries (KGC, Yungjin Pharm, Tae-A Industrial, COSMOCOS, KGCYebon)
[2)] Due to the sale of buildings in the real estate division, which has high GHG emissions variability, there has been a temporary increase in emissions in Category 11 (Use of sold products) and Category 12 (End-of-life treatment of sold products). A decrease in Scope 3 emissions is expected by 2025.

(B) APPROACH USED FOR MEASURING GHG EMISSIONS

KT&G is a company subject to the K-ETS (Emissions Trading Scheme) under the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits. In case of Korea, we applied the "Guidance for reporting and verification of GHG emissions trading scheme" and "ISO 14064-1 (2018)" when measuring Scope 1 and 2 emissions pursuant to the aforementioned law. We applied the GHG protocol for Scopes 1 and 2 and Scope 3 when measuring emissions for overseas business sites.

We applied [Appendix 4] Method for determining organizational boundary of the "Guidance for reporting and verification of GHG emissions trading scheme" and used the business site-level operational control method as our measurement approach. Accordingly, we did not disclose emissions of associates and joint ventures excluding subsidiaries.

GUIDELINES FOR EMISSIONS CALCULATION

Category	Guidelines
Scope 1, 2	• Guidelines on the operation of the target management of greenhouse gases in Korea • ISO 14064-1:2018 • Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) • IPCC Guidelines for National Greenhouse Gas Protocol and Accounting Tool
Scope 3	• ISO 14064-1:2018 • Greenhouse Gas Protocol: Scope 3 Guidance • Corporate Value Chain (Scope 3) Accounting and Reporting Standard • Methodology for External Projects by the Ministry of Environment

METRICS AND TARGETS

INPUTS AND MAJOR ASSUMPTIONS

SCOPE 1, 2

Category	Inputs				Major assumptions
	Activity data		Emission factor		
	Content	Type[1)]	Content	Source	
Scope 1	Fuel usage	1st	Emission factor by GHG type	(Electric power) IEA (Other than electric power) IPCC	-
Scope 2	Electric power or heat (steam) usage	1st	Article 15 of the Guidance for reporting and verification of GHG emissions trading scheme	(Electric power) IEA (Other than electric power) IPCC	-

[1)] The 1st type of data refers to information provided by suppliers or other companies related to specific activities within the value chain (data obtained from meter readings, utility bills, or other means indicating specific activities within the value chain). The 2nd type of data refers to industry-average data provided by third-party data providers (data from public databases, government statistics, literature reviews, and industry association data).

SCOPE 3

Category	Inputs				Major assumptions
	Activity data		Emission factor		
	Content	Type[1)]	Content	Source	
C1 Purchased goods and services (KT&G)	Service	2nd	Emission factor by industry	US EPA EEIO and Korea Energy Agency	Estimate emissions based on details of execution as intangible assets in CAPEX
	Partner companies' fuel usage and KT&G proportion	1st	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea, IEA Emission Factors by country	Estimate emissions by reflecting proportion of delivery to our company from among major partner companies' GHG emissions
	(Domestic) Leaf tobacco farmland area	1st	Emission factor when cultivating leaf tobacco	Common guidelines on measuring agricultural product GHG	Calculate emissions based on domestic leaf tobacco farms' fertilizer, crop protection agent, and energy usage
	(Domestic) Leaf tobacco farmland area	1st	Emission factor when drying leaf tobacco	Directly measure emission coefficient when cultivating and drying leaf tobacco in Korea	Calculate emissions based on energy usage for drying leaf tobacco in Korea
	(Overseas) Leaf tobacco purchase amount	1st	Emission factor of imported leaf tobacco	Directly measure emission coefficient when cultivating and drying overseas leaf tobacco	Estimate emissions based on cultivation and drying LCA per overseas leaf tobacco purchase amount

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

METRICS AND TARGETS

SCOPE 3

Category	Inputs				Major assumptions
	Activity data		Emission factor		
	Content	Type[1)]	Content	Source	
C1 Purchased goods and services (KGC)	Fresh ginseng purchase amount (Including 4-year-old and 5-year-old fresh ginseng)	2nd	6-year-old fresh ginseng purchase amount	Ecoinvent and Ministry of Environment's LCI DB	Estimate emissions by performing LCA for cultivating 6-year-old fresh ginseng
	Herbal medicine purchase amount	1st	Emission factor by industry	US EPA EEIO	Estimate emissions by applying industry-specific emission factors based on the purchase amount of herbal medicines
	Amount of fuel used by material suppliers	1st	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea	Estimate emissions by reflecting the proportion of the company's supply in the GHG emissions of major partner companies
	Additive purchase amount	2nd	Emission factor by industry	US EPA EEIO, Korea Energy Agency	Estimate emissions by applying industry-specific emission factors based on the purchase amount of additives for each partner company
	Amount of fuel used by OEMs	1st	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea	Estimate our company's allocation from OEM companies' emissions based on emissions from major OEMs' fuel consumption and ratio of delivery to our company
C1 Purchased goods and services (Subsidiaries other than KGC)	Product and service purchase amount	2nd	Emission factor by industry	US EPA EEIO, Korea Energy Agency	Estimate emissions by applying the emission coefficient per industry based on the purchased product and service amount
C2 Capital goods (KT&G and its subsidiaries)	(KT&G) Capital budget investment performance (Subsidiary) Capital goods purchase amount	1st	Emission factor by industry	US EPA EEIO, Korea Energy Agency	Estimate emissions by applying the emission coefficient per industry based on the executed capital budget
C3 Fuel- and energy-related activities (KT&G and its subsidiaries)	Fuel consumption	1st	Emission factor by fuel	(Domestic fuel) Ministry of Environment's LCI DB (Domestic electricity) National Institute of Environmental Research (Overseas) UK GOV conversion factor	Calculate emissions by applying the domestic power upstream and generation stage emission coefficient, as well as the emission coefficient in accordance with the emissions trading guidelines
C4 Upstream transportation and distribution (KT&G and its subsidiaries)	Transportation methods, distances, and frequencies	1st	Emission factor by means of transportation	Ministry of Environment's LCI DB and WRI Emission Factor	Calculate emissions based on transportation costs when data on transportation methods, distances, and frequencies are difficult to obtain
	Transportation costs	2nd			
C5 Waste generated in operations (KT&G and its subsidiaries)	Waste treatment method and amount	1st	Emission factor by waste type and treatment method	Ministry of Environment's LCI DB	Calculate emissions through the emission coefficient per waste type and treatment method
C6 Business travel (KT&G and its subsidiaries)	Transportation types and distances	1st	Emission factor by means of transportation	Ministry of Environment's Guidelines for Low-Carbon Green Events	Calculate emissions by considering travel distance for business trip, means of transportation, and no. of people

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

METRICS AND TARGETS

SCOPE 3

Category	Inputs				Major assumptions
	Activity data		Emission factor		
	Content	Type[1)]	Content	Source	
C7 Employee commuting (KT&G and its subsidiaries)	No. of employees	1st	Emission factor by means of transportation	(Domestic) National transportation database, Korea Energy Agency's report on GHG emissions in the transportation sector, Ministry of Environment's Guidelines for Low-Carbon Green Events (Overseas) UNESCAP, Statista, Ministry of Environment's Guidelines for Low-Carbon Green Events	Estimate the distance per means of transportation in consideration of KT&G's no. of employees and annual no. of work days based on statistical data on the average commute distance and ratio of each means of transportation
	Average travel distance for daily commute	2nd			
	Ratio per means of transportation used by employees	2nd			
	Annual no. of days of work	1st			
C8 Upstream leased assets (Subsidiaries)	Fuel consumption by type in leased assets	1st	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea	Calculate emissions based on total floor area information when data on fuel consumption by source in leased assets is difficult to obtain
	Area of leased assets	2nd	Total floor area of leased assets	Estimation and characteristics of GHG emissions in the building sector based on national energy statistics from the Architectural Institute of Korea	
C9 Downstream transportation and distribution (KT&G and its subsidiaries)	Transportation methods, distances, and frequencies	1st	Emission factor by means of transportation	Ministry of Environment's LCI DB and WRI Emission Factor	Calculate emissions based on transportation costs when data on transportation methods, distances, and frequencies are difficult to obtain
	Transportation costs	2nd			
C10 Processing of sold products (Subsidiaries)	Customer revenue and cost of sales	2nd	Emission factor by industry	Korea Energy Agency	Apply the industry average revenue when it is difficult to determine the revenue; and calculate the average cost of sales ratio using the cost of sales from similar businesses when it is difficult to ascertain the cost of sales
C11 Use of sold products (KT&G and KGC)	(Device charging) Average use when a device product is charged once	1st	Emission factor of domestic electric power	Guidelines on the operation of the target management of greenhouse gases in Korea	Estimate the total no. of times of charging by dividing the NGP stick sales volume by average use when the device is charged once
	(Device charging) NGP stick sales volume	1st			
	(Lighter combustion) Average no. of times of use per one lighter and volume of Butane	2nd	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea	Estimate the total amount of butane used by dividing total CC sales by average no. of times of use per lighter
	(Cigarette combustion) CC sales volume	1st			
	(Cigarette combustion) Data on CC sales volume and use of cigarette rod part raw material	1st	Emission factor during combustion by ingredient	Guidelines on the operation of the target management of greenhouse gases in Korea and Ministry of Environment's LCI DB	Calculate emissions by assuming combustion of the entire cigarette except the cigarette butt
	(Real estate) Completion and sales year and total floor area of newly developed real estate assets based on sales completion or disposal	1st	Emission factor based on total floor area by building type	Estimation and characteristics of GHG emissions in the building sector based on national energy statistics from the Architectural Institute of Korea	Estimate the emissions generated during the lifespan of the sold real estate
	(KGC's processed food) Product sales volume	1st	Emission factor of electric power	Guidelines on the operation of the target management of greenhouse gases in Korea	Calculate emissions based on the cooking method (electricity consumption) of sold products

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

METRICS AND TARGETS

SCOPE 3

Category	Inputs				Major assumptions
	Activity data		Emission factor		
	Content	Type[1)]	Content	Source	
C12 End-of-life treatment of sold products (KT&G)	(CC) Annual sales volume, average length of cigarette butts	2nd	Emission factor by waste type and treatment method	Ministry of Environment's LCI DB	(CC) Weight of CC products sold – Estimate the weight of cigarette waste based on the average length ratio of cigarette butts
	(CC) Weight of filters and tobacco parts	1st			
	(NGP) Annual sales volume	1st			(NGP) Annual sales volume – Estimate the weight of NGP waste using the standard weight of NGP products
	(NGP) Products' standard weight	1st			
	(Real estate) Amount of input per construction material of real estate sold (via allocation or disposal)	2nd			Estimate the input quantities of materials during construction based on the amount of concrete used
C12 End-of-life treatment of sold products (Subsidiaries)	Materials and weight of sold products	1st	Emission factor by waste type and treatment method	Ministry of Environment's LCI DB	Apply the average ratio of each material and treatment method based on the national waste generation and treatment status
C13 Downstream leased assets (KT&G and its subsidiaries)	Fuel consumption by type in leased assets	1st	Emission factor by fuel	Guidelines on the operation of the target management of greenhouse gases in Korea	Calculate emissions based on the amount of fuel used by leased assets
C13 Downstream leased assets (KGC)	Fuel costs in leased assets	2nd			Estimate emissions based on the amount and cost of fuel used by leased assets
C14 Franchises (KT&G and its subsidiaries)	Total floor area per distribution channel	2nd	Emission factor based on total floor area by building type	Construction Technology Digital Library system	Apply a standard guide area uniformly since it is difficult to determine the area information of individual stores
C15 Investments (KT&G)	(Subsidiaries) Owned share and total floor area (Associates and joint ventures) Owned share and revenue	2nd	Emission factor based on total floor area by building type and emission factor by industry	Estimation and characteristics of GHG emissions in the building sector based on national energy statistics from the Architectural Institute of Korea, US EPA EEIO	Estimate emissions by identifying annual emissions per area of subsidiaries and associates and reflecting the share ratio; and in other cases, estimate emissions by applying the emission coefficient per industry based on revenue

[1)] The 1st type of data refers to information provided by suppliers or other companies related to specific activities within the value chain (data obtained from meter readings, utility bills, or other means indicating specific activities within the value chain). The 2nd type of data refers to industry-average data provided by third-party data providers (data from public databases, government statistics, literature reviews, and industry association data).

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

(C) INFORMATION ON CONTRACTUAL INSTRUMENTS RELATED TO SCOPE 2 GHG EMISSIONS

MARKET-BASED AND LOCATION-BASED SCOPE 2 EMISSIONS

(Unit: tCO_2eq)

Category	2023	2024
Market-based Scope 2[1]	113,585	114,088
Location-based Scope 2[1]	134,709	135,535

[1] Scope of aggregation: All domestic business sites—138 buildings including manufacturing sites (Daejeon Plant 1 and 2, Yeongju Plant, Gwangju Plant, etc.), other leased buildings, branches, offices, etc.—and overseas manufacturing sites of KT&G; and domestic and overseas manufacturing sites of subsidiaries

INFORMATION ON CONTRACTED PRODUCTS RELATED TO SCOPE 2 GHG EMISSIONS

Means of contract	Energy source	Consumption (Mwh)	Contract period
I-REC (Indonesia)	Solar power, Wind power, Geothermal	15,676	Jan. 1, 2024 - Dec. 31, 2024
I-REC (Türkiye)	Geothermal	3,495	Jan. 1, 2024 - Dec. 31, 2024
Green energy (Russia)	Solar power, Wind power	7,000	Jan. 1, 2024 - Dec. 31, 2024
Direct PPA (SK E&S)	Solar power	11,627	Jan. 1, 2024 - Dec. 31, 2024

(2) Climate-related Transition Risks

KT&G's carbon emission intensity is not high compared to other industries owing to business characteristics, but the domestic tobacco business area's business sites are subject to K-ETS. Therefore, there is a possibility of exposure to risks stemming from changes in policies and regulations related to K-ETS. Furthermore, considering the regulatory tightening direction, such as the government's enhancement of the 2030 Nationally Determined Contribution (NDC), we expect potential cost increase risks stemming from allowance price increases in the mid- to long-term. Accordingly, we are making diverse efforts to enhance energy efficiency and reduce GHG of overall business sites. We are increasing investments in energy-saving facilities and reducing GHG emissions intensity by raising process efficiency. Our mid- to long-term plan is to raise the proportion of electric power use in production processes and increase the ratio of renewable energy power generation. These efforts will respond to potential regulation changes and contribute to establishing a foundation for sustainability management.

BUSINESS ACTIVITIES VULNERABLE TO CLIMATE-RELATED TRANSITION RISKS

Category	Sales (KRW million)[1]	Percentage (%)[2]
Sales of business sites subject to K-ETS	3,704,548	62.7

[1] Based on the separate financial statements of the target business site (company)
[2] Percentage compared to the figure based on the consolidated financial statements

(3) Climate-related Physical Risks

KT&G used S&P's Climanomics® analysis tool to analyze the level of physical risk from climate change, targeting major business sites. Analysis results indicate that Türkiye, among overseas business sites, has a relatively high physical risk compared to other business sites of KT&G. The region has been analyzed to face increased physical risk levels after the 2030s, driven by heightened water stress due to extreme temperatures and water resource shortages caused by climate change. However, as of now, no direct damage cases caused by abnormal weather conditions have been reported at the Türkiye business site.

BUSINESS ACTIVITIES VULNERABLE TO CLIMATE-RELATED PHYSICAL RISKS

Category	Sales (KRW million)[1]	Percentage (%)[2]
Sales of KT&G Türkiye Corporation	46,180	0.8

[1] Based on the separate financial statements of the target business site (company)
[2] Percentage compared to the figure based on the consolidated financial statements

(4) Climate-related Opportunities

KT&G categorizes business activities classified as environmentally sustainable activities (Taxonomy-aligned) under the EU Taxonomy as assets and business activities aligned with climate-related opportunities. However, there are no such activities for 2024.

(5) Capital Allocation

KT&G categorizes capital expenditures for environmentally sustainable activities (Taxonomy-aligned) and green bond issuance under the EU Taxonomy as capital allocation aligned with climate-related risks and opportunities.

CLIMATE-RELATED CAPITAL ALLOCATION

Category	Content	Amount (KRW million)
Capital expenditure	Solar power generation using photovoltaic technology	9,220
	Installation, maintenance, and repair of equipment and devices for measuring, regulating, and controlling the energy performance of buildings	459
	Installation, maintenance, and repair of renewable energy technologies	175
Funding	Green bond issuance	170,000
Total		**179,854**

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

(6) Internal Carbon Pricing

KT&G's internal carbon price was set as KRW 50,000/tCO_2eq. The calculation method and methods applied to major assumptions and decision-making are as follows:

Category	KT&G status
Whether applied to decision-making and method	• Investment decision-making: When a GHG reduction investment is needed, the internal carbon price-based payback period is calculated and used to determine the investment's appropriateness and timing of adoption • Others: Identify the investment's potential vulnerability (stress test)
Detailed application scope	• All business sites (including overseas)
Major assumptions and calculation methodology	• We estimated a reduction in free allocated allowances and the resulting rise in allowance prices and set KRW 50,000 per CO_2 ton for consideration of potential carbon cost in investment decision (Indonesia: IDR 5,726,800, Russia: RUB 2,508, Türkiye: TRY 693)
Way of encouraging climate-related policy and target execution	• The internal carbon price is utilized as a standard for economic analysis, allowing potential carbon costs to be considered in advance when making investment decisions. This enhances the validity of investment activities aimed at addressing climate change and encourages related investments. The internal carbon price is reflected in the calculation of the payback period, taking into account the expected cost-saving effects and emission reduction effects in climate-related investment activities. • When we developed a plan to install a photovoltaic power generation facility on the rooftop of manufacturing facilities in Korea in 2022, internal carbon price was applied to calculate profit and alternative effects to encourage the investment of reduced costs in renewable energy facilities. Specifically, assuming an annual reduction of approximately 1,690 tons of emissions from the installation of photovoltaic facilities, it was estimated that applying the internal carbon price would result in an annual economic profit of approximately KRW 85 million. • Additionally, through the operation of the internal carbon pricing, the calculation method for the payback period, previously based on "investment cost/energy saving cost," has been changed to "investment cost/(energy saving cost + internal carbon price)." This modification helps reduce the payback period for investments in climate change response activities. • As reflected above, internal carbon pricing helps to make positive decisions in the internal investment policy and decision-making process of various emission reduction activities. It also performs roles as a major guideline for deciding the priority of reduction activities by comparing the financial impact of potential reduction effects.

(7) Compensation

KT&G operates performance evaluation indexes by reflecting the performance of implementing ESG tasks, including climate change, in the remuneration of C-level management of each division and HQ, including top management. In April 2024, the weight of ESG index was increased from 5% to 10% when setting the CEO's short-term management goals. Furthermore, the compensation system was restructured for long-term management goals to more directly reflect the performance of achieving greenhouse gas reduction targets as part of the Group's low-carbon transition strategy, thereby enabling the creation of tangible climate change response outcomes. Major climate-related KPIs that were reflected in the performance evaluation of the CEO and relevant headquarters' top management and organization in 2024 are as follows:

CLIMATE-RELATED KPIS AND COMPENSATION RATIO FOR THE CEO AND EXECUTIVES IN 2024

Category	Major KPIs	Percentage of climate-related compensation linked to executive compensation in 2024
CEO	• Development of distinctive competitiveness in business-specialized areas and ratio of ESG target execution • Results of evaluated grade of three organizations—CDP climate/water, MSCI, KCGS	10%
Top management, managers in charge, and employees	• Total Scope 1+2 GHG emissions • Renewable energy adoption ratio • Cumulative EV transition rate • Execution of improvement tasks connected to energy diagnosis results • Purchase and use of renewable electric power in the leased buildings	4%

(8) Industry-based Metrics

KT&G's main business, the manufacturing and sale of tobacco, falls under the Tobacco industry in the Sustainable Industry Classification System (SICS). As of the report's publication date, there are no industry-based metrics related to this industry in the IFRS S2 Industry-based Guidance.

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

2. CLIMATE-RELATED TARGETS

(1) Information Related to Metrics Used to Set the Targets (Target Metric, Objective, Application Scope, etc.)

KT&G has established a target to reduce Scope 1+2 GHG emissions by 42% by 2030 and achieve carbon neutrality by 2045, in alignment with the 1.5℃ scenario based on the Science-Based Targets (SBT) guidelines, and received approval from SBTi in November 2024. This surpasses the reduction target of the 2030 NDC industry area of Korea, which is the region with jurisdiction of KT&G.

(2) Method of Monitoring Progress towards the Target

(A) WHETHER THE SET TARGET WAS VALIDATED BY A THIRD PARTY

KT&G has established mid- to long-term GHG reduction targets in accordance with the SBTi guidelines, a global initiative for science-based emission reduction goals, and officially received approval for these targets from SBTi in November 2024.

(B) TARGET REVIEW PROCESS

KT&G sets and reviews targets to address climate-related risks and opportunities through the Sustainability Committee, and the Committee regularly monitors the established targets, thereby managing progress and outcomes. For details on the monitoring process, please refer to the "1. Governance Body – (5) Management/Oversight of Goal Setting and Progress" and "2. Top Management – (2) Top Management's Use of Control and Procedure" in the "Governance."

(C) MONITORING METRIC FOR PROGRESS IN ACHIEVING THE TARGET

KT&G monitors the following metrics in relation to the progress in achieving climate-related targets.

Target metric	Progress monitoring metric	Mid-to long-term target		Final target	
		Target	Year of achievement	Target	Year of achievement
Total Scope 1, 2 emissions	Scope 1, 2 emissions reduction rate	42%	2030	100%	2045
Scope 3 emissions	Scope 3 emissions reduction rate	25%	2030	100%	2045
Renewable energy usage rate	Renewable energy conversion rate	80%	2030	-	-

CLIMATE TARGETS

Target metric	Objective	Scope	Target type	Baseline (Base year)	Interim target (2030)	Final target (2045)
Total Scope 1, 2 emissions	Climate mitigation	Company-wide	Absolute quantity target	197,028 tCO_2eq (2020)	42% reduction	100% reduction[2]
Scope 3 emissions	Climate mitigation	Company-wide	Absolute quantity target	857,279 tCO_2eq (2022)	25% reduction[1]	
Renewable energy usage rate	Establishment of an eco-friendly energy system	Company-wide	Absolute quantity target	0.1% (2020)	80%	-

[1] Scope 3 interim reduction targets: Category 1, 3, 11
[2] In accordance with the SBTi guidelines, achieve net zero through 90% absolute reduction of GHG emissions and 10% offset

GOVERNANCE 01
STRATEGY 02
RISK MANAGEMENT 03
METRICS AND TARGETS 04
GREENHOUSE GAS
CLIMATE-RELATED TARGETS

(3) Performance Analysis against Target

KT&G's performance against its mid- to long-term climate-related targets is as follows. KT&G aims to reduce Scope 1 and 2 emissions by 42% from 2020 levels and reduce Scope 3 emissions by 25% by 2030, and achieve net zero by 2045.

PERFORMANCE FOR THE REPORTING YEAR COMPARED TO TARGETS

Indicators for monitoring targets and progress		2023 performance	2024 performance	Mid-to long-term target (2030)		Final target (2045)	
				Target	Achievement rate for the reporting year	Target	Achievement rate for the reporting year
Scope 1, 2 (market-based)	Emissions (Unit: tCO_2eq)	185,672	182,418	114,276	17.7%	0	7.4%
	Reductio rate compared to the base year	5.8%	7.4%	42%		100%	
Scope 3	Emissions (Unit: tCO_2eq)	516,237[1)]	780,572	25%[2)]	29.2%	0	8.9%
	Reductio rate compared to the base year	39.8%[1)]	8.9%			100%	
Renewable energy conversion rate		13.5%	15.5%	80%	19.4%	-	-

[1)] Due to the significant reduction in emissions from the real estate division, which has high volatility in GHG emissions, Scope 3 emissions for 2023 have changed significantly.
[2)] Targets: Category 1, 3, 11

REDUCE DIRECT EMISSIONS (SCOPE 1) GHG directly emitted by KT&G arises from process gas and LNG fuel, etc. that are used mainly in manufacturing processes. To reduce direct emissions, we are switching utility facilities to high-efficiency facilities and recovering waste heat that is generated during processes to reduce fuel consumption. In addition, sales organizations with considerable gasoline and diesel mobile combustion emissions changed 13.7% of business fleets to EVs as of the first half of 2025 and plan to complete 100% transition to EVs by 2030.

REDUCE INDIRECT EMISSIONS (SCOPE 2) KT&G supports the global initiative RE100 and seeks to achieve a business site renewable electricity usage rate of 80% by 2030. To this end, we built a 3.1 MWp-level photovoltaic power generation facility on the rooftop of the Gwangju Plant in 2023 and plan to build 10.5 MWp-level photovoltaic power generation facilities on the rooftop of manufacturing plants and unused sites by 2025. In 2024, we signed a total of 11.8 MWp long-term direct power purchase agreement (PPA) to procure renewable energy, and plans are in place to further expand such measures in the future. In addition, we have been purchasing domestic and overseas Renewable Energy Certificates (REC) since 2022, to reduce Scope 2 emissions and increase the proportion of renewable energy usage.

REDUCE VALUE CHAIN EMISSIONS (SCOPE 3) In 2024, KT&G obtained approval for its net-zero target from SBTi and established a systematic implementation strategy to reduce Scope 1, 2, and Scope 3 emissions. As part of these efforts, we have been conducting research to analyze the effectiveness of biochar[1)] in reducing GHG emissions from leaf tobacco farms, suppliers of key raw materials. Building on this analysis, we plan to explore various GHG reduction methods for leaf tobacco farms and actively support their practical application. We also provide direct and indirect support to material suppliers for GHG reduction, such as assistance with high-efficiency equipment and environmental management consulting. Moving forward, we will pursue various approaches to reducing GHG emissions, including support for ISO certification and GHG management systems.

[1)] Biochar is a material produced by pyrolyzing biomass such as wood, crop residues, and plant-based materials. It lowers greenhouse gas concentrations by storing carbon in the soil and contributes to soil health improvement. As such, it is gaining attention as a method of carbon capture, utilization, and storage (CCUS), or carbon capture and storage (CCS), in the agricultural sector.

(4) Information on GHG Emissions Reduction Target

(A) TYPES OF GHG INCLUDED IN THE TARGET

KT&G set a reduction target for Scope 1 and 2 emissions, which include six types of GHG (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) for Scope 1 emissions, and three types of GHG (CO_2, CH_4, N_2O) identified for Scope 1 and 2 emissions based on the company's separate criteria.

TYPES OF GHG INCLUDED IN THE EMISSION REDUCTION TARGETS

Scope	GHG type					
	CO_2	CH_4	N_2O	HFCs	PFCs	SF_6
Scope 1	○	○	○	X	X	X
Scope 2	○	○	○	X	X	X
Scope 3	○	○	○	X	X	X

(B) SCOPE OF GHG INCLUDED IN THE TARGETS, TYPES, AND WHETHER SECTOR-SPECIFIC DECARBONIZATION APPROACHES ARE USED

KT&G obtained approval from SBTi in 2024 for its "2030 Greenhouse Gas Reduction Targets" and "2045 Net-Zero Goal." Our GHG reduction targets are aligned with the 1.5°C (Scope 1+2) and Well-below 2°C (Scope 3) scenarios. Accordingly, we plan to reduce Scope 1+2 emissions by 42% compared to 2020 levels by 2030 and decrease Scope 3 emissions by at least 25% compared to 2022 levels. Furthermore, under the 2045 Net-Zero Goal, we aim to achieve "zero" net emissions by achieving a 90% absolute reduction in GHG emissions and offsetting the remaining 10% through absorption, removal, etc.


KT&G