

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

As a general beverages company (beverages and liquor,) Lotte Chilsung Beverages has been strengthening the line-up for its liquor products, such as soju, wine, and beer, to engage in more efficient and integrated strategies, to secure competitive products in most categories. With this, we were able to secure the best performance ever since our foundation, making total sales of 2,841.7 billion KRW and an operating profit of 222.9 billion KRW in 2022, as consolidated.

As for the beverages sector separately made 1,867.8 billion KRW in sales and an operating profit of 165.9 billion KRW, as separate, for 2022. The item with the largest share was fizzy drinks, with our main products being Chilsuign Cider and Pepsi Cola. With increased interest in health and weight loss among our customers, the demand for zero-calory carbonated beverages soared, showing a high sales growth again in 2022. In the meantime, we are currently operating six beverage factories in South Korea, and the key raw materials are sugars, cans, and PET.

As for our liquor business, recorded 774.5 billion KRW in sales and 36.9 billion KRW in operating profits, as separate, for 2022. The key items include soju, beer, Cheongju, etc. We did a renewal of our existing soju products, 'Cheoum-Cheoreom' to enhance the competitiveness of the products. In September 2022, we launched 'Cheoum-Cheoreom Saero,' a new zero-sugar soju product. Our beer product, Kloud, is marketed and positioned in accordance with the characteristics of the products, respectively as the 'Original' and 'the fresh draft' lines. In addition, with the amendment of the Liquor Tax Act of South Korea and in response to the resultant changes, we are proceeding with the outsourced production of draft beer and running a draft beer cluster, to boost our cooperation and coexist with small draft beer companies. Our rice wine product, 'Cheongha' is ranked No. 1 in the domestic rice wine market. Our new product that targeted the MZ generation, who prefer weaker alcohol, named 'Byeolbit Cheongha Sparkling' is also gaining popularity in the market in 2022. Currently, we are operating five liquor factories in South Korea. The key materials include ethanol and empty liquor bottles, etc.

In addition, Lotte Chilsung Beverages is expanding its market reach beyond South Korea. In the countries where we are already present, we are expanding our channels and engaging in marketing activities to boost our competitiveness. With products that are in line with the needs of the customers and products, we expand into new countries to expand our overseas sales. Currently, our biggest export market is Russia, and our key products in the market are Milkis and Let's Be, which are ranked top in their respective categories in the country. The key export in the liquor market is soju, and the main export market is Japan.

Lotte Chilsung Beverages is improving our profitability through company-wide cooperation. And, through the management of key brands and market analysis, we enhance our products and grow the brand values of our products. As a part of our ongoing efforts, we established the execution strategies for the RE 100 Declaration and developed a roadmap for reducing plastic.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1 2022

End date

December 31 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for

1 year

Select the number of past reporting years you will be providing Scope 2 emissions data for

1 year

Select the number of past reporting years you will be providing Scope 3 emissions data for

1 year

C0.3

(C0.3) Select the countries/areas in which you operate.

Republic of Korea

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

KRW

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.
Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Direct operations only [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Do not own/manage land

Please explain

Lotte Chilung Beverages does not have farms for raw materials or land on which raw materials can be grown. All of our materials suppliers are South Korean or foreign food companies. Since we are not in any direct contract with farms to purchase our materials, we do not manage the emission of farms.

1. Raw materials for beverages

① Sugars and additives: CJ, Daesang, Samyangsa, TS Corporation, etc.

② Concentrates: Citrosuco, Coca, etc.

③ Others: Lotte Wellfood, etc.

2. Raw materials for liquor

① Ethanol: Korea Ethanol Supplies Company, etc.

② Whiskey Malt: Ian Macleod Distillers

③ Others: Alcotra SA, Hoang Long, etc.

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity

Sugar

% of revenue dependent on this agricultural commodity

10-20%

Produced or sourced

Sourced

Please explain

The raw material that is most significant to the production of Lotte Chilsung Beverages 's beverages is sugar. Sugar takes up 19% of the entire raw material purchase of our beverages division and 14.3% of the total materials purchase for beverages and liquor combined.

Agricultural commodity

Other, please specify (Grain)

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

In our liquor business, the raw material with the most significant impact is alcohol. Lotte Chilsung Beverages purchases alcohol made with rice, sweet potato, barley, tapioca, and etc. to produce our liquor (soju and beer). The share of alcohol among the raw materials for our liquor products is 31.9% and 7.9% out of the beverages and liquor combined.

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	KR7005300009

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>[Organization and Roles] Lotte Chilsung Beverages has established its ESG Committee, consisting of five external directors under the Board of Directors in August 2021. This is the highest discussion body in the company responsible for decision-making in environment, social responsibilities, and governance, while managing ESG risks and seeking to expand our business opportunities. The ESG Committee evaluated the ESG management activities of Lotte Chilsung Beverages for 2022 and approved the ESG strategies and goals for 2023.</p> <p>[Committee Agenda] Lotte Chilsung Beverages held a total of three ESG Meetings in 2022 to vote on the ESG operation plans, enactment of the Code of Conduct for partners, joining CDP and developing the implementation system, and ESG mid/long-term roadmap. Also, the ESG Committee is to review the strategies of the ESG of each year and approve key agenda. Key examples of such decision-making includes the 'reporting of the establishment of the mid/long-term ESG roadmap' in July 2022 and 'approval of the goals mid/long-term goals for the KPI by the CEO,' in April etc.</p>
Chief Executive Officer (CEO)	<p>[Members and Roles] The role of the CEO of Lotte Chilsung Beverages is to make the final decision on all climate-change-related issues of the company. The CEO, as the chair of the Board of Directors, shares the key outcomes of the six committees (Audit Committee, Compensations Committee, Managerial Committee, ESG Committee, etc.) and makes key managerial decisions on these issues.</p> <p>[Activities] The CEO of Lotte Chilsung Beverages determined ESG management of the level of the advanced global companies as the goal of the sustainable management of the company. We has been engaged in the ESG management with our customers and stakeholders. For this purpose, the CEO has approved the plan to join RE100, which means 100% of the electricity used by the company is to be generated using renewable energy sources by the year of 2040 and set the goal of carbon neutrality through various greenhouse gas reduction activities by 2040. Also, in order to establish a system for resource recycling, the CEO reviewed the plan to establish a plastic roadmap. This is included the expansion of products with no labels or shortened labels, making our products more lightweight, and establishing a system of recovering used PETs to reduce the use of plastic, etc., as a part of our diversified activities. With such activities, Lotte Chilsung Beverages is working hard to reduce greenhouse gases not only in our own facilities but also over our entire value chain.</p>

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing and guiding public policy engagement	<Not Applicable>	<p>[The roles and current status of the Board of Directors] Lotte Chilsung Beverages has been operating the ESG Committee, which is composed of five outside directors under the Board of Directors to respond to the issue of climate change. The ESG Committee is informed by various climate-change-related risks, issues, and progress with our projects by the ESG Team, other related departments, and business facilities. They are to oversee the issues and risks related to climate change; vote for the establishment of the response strategies against climate changes; approve key projects; and conducts the final review on disclosures. The ESG Committee has been held at least twice a year, and a total of three board meetings were conducted in 2022. The key agenda for voting in the ESG Committee include the establishment of the environment management standard up to the global standard for climate change and water management; establishment and advancement of the key goals related to climate change; improvement of carbon intensity, which is one of the CEO ESG KPI goals; management of the progress with carbon neutrality; and reviewing and establishing the roadmap related to climate changes, along with other related agenda.</p> <p>[Approvals and Discussions] The ESG Committee has conducted a review on the ESG goals and their progress with regard to the climate change in 2022 and established and voted for the key implementation plans for 2023. In addition, for 2022, the progress with the CEO ESG KPI goals was reported for the continued improvement of water resources efficiency; measurement and management of upstream/downstream carbon intensity; reduction of unhealthy ingredients in products; and increasing nutrients within products, while establishing the mid/long-term CEO ESG KPI goals for 2023.</p>

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	<p>[Summary of climate-related expertise]</p> <p>Among the members of the ESG Committee, a total of one had expertise in climate change. The criteria for the evaluation of expertise in climate change issues include the relevance of the experience in managing climate risks; experience and expertise in the environment, social responsibility, and governance. The Board of Directors include members who have expertise in climate change issues and conduct evaluations based on these criteria.</p> <p>One of the outside directors on the Board is a professor in the Department of Agricultural Economy and Rural Development at Seoul National University. This director is also a food business expert, with a major in food marketing and information management. They have expertise in understanding the impact of climate change on food industries, specifically concerning sustainable food, such as alternative meat in consideration of the farming environment and animal welfare, as well as low-sodium food options, which can influence consumer purchasing behavior and help determine climate risks.</p>	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

[Responsibility for climate change based on competence]

The CEO of Lotte Chilsung Beverages takes overall responsibility for the ESG management performance of the company and managing business administration issues related to the climate. Also, the CEO oversees all ESG management activities. Especially, starting from 2021, non-financial performances were included in the performance evaluation of the CEO, so that the CEO oversees ESG management, especially the managerial issues related to the climate. In July 2021, for such ESG management, Lotte Chilsung Beverages founded the ESG Team, which is a dedicated organization for the implementation of ESG management, which is still in operation.

[Monitoring Process]

The ESG Team identifies the ESG requirements of various interested parties analyzes the issues to establish the ESG strategy while managing risks. For the strategies so developed, sub ESG tasks are managed in cooperation with the related departments, which brief the ESG Team regularly to manage the progress according to the strategy. The ESG Team coordinates to enhance the performing competence of the related departments and verifies ESG performances, which results in the annual publication of the Lotte Chilsung Beverages Sustainability Report to disclose the content and performance of our ESG management and endeavor to monitor the management activities.

Position or committee

Other committee, please specify (ESG Committee)

Climate-related responsibilities of this position

Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Half-yearly

Please explain

[The responsibilities regarding climate change based on capabilities]

The ESG Committee: Lotte Chilsung Beverages has established its ESG Implementation Committee as the highest level decision-making body for the ESG management. The committee chaired by an outside director to make its ESG management more independent. Since its foundation in 2021, the committee has been engaged in monitoring the ESG activities of Lotte Chilsung Beverages and approved the ESG KPI progress, ESG strategies, and ESG report publication for each year. Also, the committee completed the review of the 2023 ESG implementation plan and reporting of key objectives.

[Monitoring Process]

The ESG Committee holds its regular meetings twice a year and as necessary when there are issues to be discussed. The ESG Committee is being updated on the progress with the climate change-related goals of the company and checks and monitors, whether such goals and progress are relevant. Through this review, the committee reports on the issues related to climate change, which is to be vote for during an ESG Committee meeting. These matters are disclosed in our business report every year to disclose the information related to our business activities concerning climate change with transparency.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Lotte Chilsung Beverages has been establishing and managing the key CEO performance indicators for every year. The ESG key performance indicators for the CEO are set for the environment, social responsibilities, and governance for all affiliates and managed. These indicators are determined based on the characteristics of each affiliate company. In relation to the environment, five performance indicators are selected for greenhouse gas, water resources, packaging materials, and waste management, and goals for upstream/downstream carbon intensity management and carbon neutralization are set every year to be managed as key performance indicators. A final assessment of the CEO's performance is based on their performance and target achievement. CEO ESG KPI performance is calculated and submitted to Lotte Holdings every year, and the evaluation affects the CEO's reappointment and incentive payments.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Promotion

Performance indicator(s)

Progress towards a climate-related target

Achievement of a climate-related target

Implementation of an emissions reduction initiative

Reduction in emissions intensity

Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The CEO's performance in 2021, along with the existing financial performances, included the ESG performance, according to the changed policies.

[Period of performance indicators]

The ESG performance indicators are planned for the mid/long-term and annually. The evaluation period for each performance indicator is included in every year. The CEO takes overall responsibility for a total of 14 performance indicators, such as carbon footprints, packaging, water resources, and industrial safety and health, etc. And the departments responsible for each of these topics reviews and sets the current management status of the year and the goals for the next year, to have them approved by the CEO.

[Quantitative Details]

The ESG Key Performance Indicators (KPIs) encompass various environmental indicators such as greenhouse gases, water resources, packaging materials, and waste management. Environment management indicators are established to assess progress in achieving the carbon neutrality roadmap, managing water resource sensitivity, reducing packaging materials, promoting the use of environmentally-friendly materials, and enhancing recycling efficiency. Moreover, external assessments by organizations like MSCI, KCGS, and CDP are also factored into the CEO evaluation process. These evaluations are conducted annually for the CEOs of all Lotte Group affiliates. Lotte Holdings consolidates the yearly results, which subsequently influence CEO tenure and incentives.

[Regional, Industrial, or Operational Contexts]

The ESG key performance indicators for the CEO are set for the environment, social responsibilities, and governance for all affiliates and managed. These indicators are determined based on the businesses (food, chemistry, or service, etc.) of each affiliate company. The ESG KPIs of Lotte Chilsung Beverages have been set in the same way.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Among the key performance indicators assigned to the CEO, we set indicators for the environment, society, and governance areas to achieve the climate transition plan and carbon-neutral goals, and set five indicators for the environment. And, there are five indicators in the environment sector.

The goals that could directly contribute to carbon neutrality include (1) implementing the carbon neutrality roadmap, (2) management of the sensitivity to water resources, (3) reduction of the use of packaging materials, (4) use of environmentally-friendly materials, (5) improvement of the efficiency of recycling. Meeting these goals will contribute to the climate shift plan (carbon neutrality) implementation.

Lotte Chilsung Beverages sets and evaluates the performance indicators for the performance in the progress with the climate shift plan based on the said indicators every year.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	2022-2025year(K-ETS 3rd Allocation Plan)
Medium-term	3	8	2026-2030year
Long-term	8	18	2031-2040year(Carbon neutrality)

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

[The definition of important or strategic impacts]

Lotte Chilsung Beverages has been applying the risk management policies approved by its BOD to minimize the negative impact of climate change upon its financial performance among its management activities. The important financial and strategic impacts defined by Lotte Chilsung Beverages are the changes in the costs and profits due to market uncertainty, imbalance in the supply and demand of raw materials, damages to its reputation, and business risks due to the production of environmentally-friendly products. Especially, to respond to climate risks, Lotte Chilsung Beverages has been following the recommendations made by the TCFD, by separating the key issues of the sub-domains of transitional risks and physical risks, while defining and controlling market uncertainty and internal/external risks and opportunities that could affect its business significantly.

[Description of quantitative indicators]

The selected risks are prioritized based on their classification into 1) Financial Impact, 2) Business Continuity, and 3) Corporate Operational Risks. Lotte Chilsung Beverage quantitatively assesses these risks to determine their priority. To proactively address these risks, the company constantly maintains a preventive system by identifying their root causes and ensuring preparedness for any potential occurrences.

1) Financial impacts Priorities are assigned based on the addition to the costs or profits due to the issues. The additional costs or profits are prioritized based on the analysis of the profits and losses of the previous year and the goals of the current year for the company, etc. Additional cost/profit in total (ex. More than 1 million dollars, to be determined based on the analysis of the profits and losses of the company for the current year), share (ex. 5% or more of the operating profits,) rank (ex. Top five issues based on the total amount), etc., are considered to evaluate important risks. Also, the magnitude of the impact of the risks are classified as high, medium-high, medium, medium-low, and low, while it is also evaluated whether the risks will manifest themselves in the short, mid, or long-term, to control the key issues of the company regarding the time of fiscal impacts and the probability of manifestation.

2) Business continuity Lotte Chilsung Beverages manages its business risks originating from the changes in the industry. These includes (1) supply chain risks, such as delayed product delivery due to the failure in raw material procurement or failure in production continuity or the damages to reputation due to the incapability of suppliers in ESG capability enhancement management including Scope 3 suppliers; (2) risks of casualty, etc., originating from disasters such as an earthquake, fire, etc., or other accidents within business facilities; and (3) availability of the technologies related to renewed materials or environmentally-friendly materials due to the increased importance of environmentally-friendly consumption. These risks are rated in a seven point scale of virtually certain, very likely, more likely than not, about as likely as not, unlikely, very unlikely, and exceptionally unlikely. The magnitude of risks are rated by a five-point scale of high, medium-high, medium, medium-low, and low.

3) Operation Lotte Chilsung Beverages controls the issues that could have a significant impact on the future growth and direction of operation of the company as 'operational risks.' These issues include ethics, legal, and reputational risks. Especially, with the increased reputational risks for the companies which fail to respond to climate change or recycling economy, the company is focusing on the issues of climate and waste materials to minimize negative impacts. Operational risks are also rated in a seven point scale of virtually certain, very likely, more likely than not, about as likely as not, unlikely, very unlikely, and exceptionally unlikely. The magnitude of risks is rated by a five-point scale of high, medium-high, medium, medium-low, and low.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

[The process of risk identification, evaluation, and response process for all business facilities]

Lotte Chilsung Beverages established risk management organizations to identify the risk factors that could affect the company in every step of our operation and developed control and response strategies. Also, based on the interest and will of the top management on risk control, the company declared ESG Management in August 2021 and established the ESG Division to clarify the actors of the risk management activities for the company-wide ESG risks, while segregating responsibilities among different departments with a view to develop a risk management system for the environment, social responsibility, and governance.

The identification/evaluation/management processes for risks are divided into Identification, Prioritization, Validation, and Review steps. The ESG Team and other related departments are to evaluate and control possible climate change risks every year and identify/evaluate the issues for each quarter. The ESG Team identifies the risks and opportunities from climate change upon Lotte Chilsung Beverages to develop short-term missions and mid/long-term corporate strategies and goals for implementing a low-carbon economy, while connecting with the mid/long-term corporate strategies to analyze the climate-related risks of the supply chain, production, R&D, and sales, etc. and working with the related departments to respond to them effectively.

- 1) Identification: Based on the sustainability context and participation by interested parties, we identify the key points that impacts the decision-making by interested parties and operation of the organization.
- 2) Prioritization: Based on the principles of importance and stakeholder engagement, the identified issues are evaluated to determine their prioritization level.
- 3) Validation: Key control points are identified through the reviews by related departments and feedback. These are then monitored continuously in connection with internal strategies and external disclosure.
- 4) Review: The risks and opportunities identified in the previous year are evaluated, and the possibility and impact of the risks and opportunities identified this year are applied to the analysis.

[Decision-making process for the response to the identified climate change risks and utilization of opportunities]

The ESG Committee and the work-level ESG departments work together to identify, evaluate, prioritize, and monitor climate risks across corporate operations to conduct integrated control of risks. For such risk control, each party must perform the following roles and make decisions accordingly.

1. ESG Committee

Lotte Chilsung Beverage established an ESG committee consisting of five independent outside directors under its board of directors in August 2021. The ESG Committee is a top consultative body that promotes environmental, social, governance decisions, ESG risk management, and greater business opportunities. The ESG Committee diagnosed its ESG management activities and established ESG strategies and goals for 2022 and ESG management mid- to long-term strategies for each sector. ESG committees review ESG strategic direction and approve key challenges each year.

By establishing the ESG Committee, Lotte Chilsung Beverages created a decision-making process for the committee to respond to corporate risks. The responsibilities of the ESG Committee include; (1) reviewing the direction of the strategies for the company for sustainable management; (2) reviewing the results of the ESG objectives of the previous year and establishing the implementation plan for the current year; (3) reviewing the key non-financial risks and issues for the environment and social responsibility, etc.; (4) key domestic and international ESG evaluation reviews and issues related to the communication with interested parties; (5) final evaluation of non-financial information disclosure; and (6) other issues determined by the Chairman related to the environment, social responsibility, etc. The ESG Committee manages the overall risk management processes and provides the relevant instructions and support for analysis to identify and evaluate potential risks. Identified risks are reported to the ESG Committee at least twice a year.

2. ESG-related departments

The ESG Team develops the model to evaluate the financial impacts of climate change and controls/operates the risks in a systematic and enhanced process. In addition, strategies developed by identifying ESG requirements from different stakeholders, analyzing issues, managing risks, establishing ESG strategies, and working with relevant departments across the enterprise to manage individual and sector-specific ESG initiatives.

For this purpose, the ESG Team (1) works with the related departments to closely review the domestic and international regulations related to climate change, key points with supply chains; and consumer issues, etc.; (2) brief the ESG Committee with the results of risk evaluations; so that (3) proper actions can be taken to minimize the negative impacts on the company. For example, with the importance evaluation in 2022, we selected key issues such as responding to climate change, expanding recycled economy products, and implementation plans for Net Zero, and these were found to be of significant strategic and financial impact on Lotte Chilsung Beverages.

The ESG Team works with the department responsible for the management of the energy used in factories and contracting renewable energy (carbon neutrality), the department responsible for the management of supply chains, suppliers of packaging materials (sustainable packaging), production departments, retail shops and local governments (recycling economy) to respond to these issues, while the financial impacts of such activities, business continuity, and external impacts are analyzed and reported to the ESG Committee to set the strategic directions to reduce such risks. With such risk reduction activities, the company set the 2040 Net Zero and RE100 goals (carbon neutrality) and monitors its progress. Also, the company has set the goals for using recycled plastic by 2030 and 2050, developing the goals for ending the use of plastics. In addition, we are closely working with the relevant departments for expanding products with no labels, clear PET (product recycling economy), and other activities.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>[Task] We are a company that emits energy when producing and transporting general drinks and alcoholic beverages, and must comply with the emission trading system (K-ETS) according to its business operation. The government is reducing the quota based on the net zero goals, and the possibility of Lotte Chilsung Beverages exceeding the limits of emission is growing. When the limit of emissions is exceeded, we have to purchase emission rights, in accordance with the rules of K-ETS.</p> <p>[Action] Recognizing the importance of the regulation on business operations, We strictly manage annual energy consumption and GHG emissions throughout its operations to achieve the goals of K-ETS. To reduce GHG emissions, We declared carbon neutrality by 2040 in 2021 and developed a roadmap in accordance with the SBTi 1.5C scenario to develop effective reduction strategies and setting the course for carbon neutrality journey. We have been reducing its GHG emissions through energy diagnosis and efficiency enhancement programs, increased adoption of EVs, and conversion to renewable energies, etc., to reduce GHG emissions. Also, we are actively engaged in activities to reduce the emission by increasing more solar panels in our business facilities. In the mid/long-term, we plan to introduce the technologies that can reduce emission when they become commercially available, such as CCUS and hydrogen technologies. We have been replacing its vehicle fleet with EVs, starting with the introduction of electric carbo vehicles in 2021 to meet the 2022 regulations. As of the end of 2022, we are running a total of 212 electric vehicles to reduce our carbon emissions. In addition, we installed and expanded EV charging stations to ensure seamless operation of these vehicles, now totaling 42 stations. And, we plan to further expand these infrastructures for charging EVs with the expansion of our EV fleet.</p> <p>[Case study] Financial uncertainty under the emission trading system can be calculated when all paid quotas incurred for emissions are purchased as emission rights if they exceed the free quota. In early 2022, the actual emission was 159,319 tons, which was beyond the free limit of 158,533 tons, and the analysis showed that there was a risk of having to purchase the emission quota for the excess. For this reason, Lotte Chilsung Beverages has been monitoring to identify risks and plan to develop strategies to secure sustainable energies, including using more renewable energies.</p>
Emerging regulation	Relevant, always included	<p>[Task] International organizations and governments are strengthening their treaties and regulations to reduce plastic usage. South Korea set a national goal replacing 30% of its plastic use by recycled plastic by 2030 and replacing 100% of it with bio plastic by 2050 and is changing the related ecosystems. As a general beverages and liquor company, Lotte Chilsung Beverages may be exposed to uncertainties in terms of long-term operations and investment due to the regulations on plastics, while the charges for recycling can be increased due to the strengthened regulations on plastic recycling.</p> <p>[Action] Lotte Chilsung Beverages identified the risks related to plastic regulations and established a roadmap to reduce and ultimately end the use of plastics. With this, we will set and implement the four strategies to reduce plastics, such as the reduction of the delivery volume of plastics, using more recycled plastics, making plastic materials easier to recycle, and enhancing the awareness on resources recycling. Also, efforts are being made to make it easier to recycle plastics. Lotte Chilsung Beverages has been investing in the technologies and building infrastructure for increasing products using no labels or shorter labels, making more light-weight PET bottles, and introducing rPET, to maximize the use of recycled materials and produce high-quality rPET with our continued R&D efforts. With these activities, Lotte Chilsung Beverages reduced its plastic use by 14% by weight in its plastic bottles through the use of recycled products and making the products lighter. We will continue working with interested parties and local governments to make lighter products and use more recycled materials to comply with the regulations against plastics imposed by the government.</p>
Technology	Relevant, sometimes included	<p>[Task] Technical risks are directly related to the operation of the factories of Lotte Chilsung Beverages. All facilities and equipment must be evaluated for their total energy consumption, and annual plans must be established to reduce their climate impact in terms of carbon emissions. Most of our existing production equipment and fleet vehicles in our business facilities use fossil fuels, which would have a negative impact on meeting the emission reduction goals and result in a negative financial impact due to an increase in emissions.</p> <p>[Action] To keep up with the changing paradigms, Lotte Chilsung Beverages has been investing in electricity efficiency enhancement technologies. Lotte Chilsung Beverages has been implementing its energy efficiency programs since 2020 and installing more OPC-M (power load optimization equipment) that saves power. With this, we reduced 650tCO₂-eq of GHG in 2022 and will continue our investment in power efficiency with more equipment installations to come. Also, we are saving more energy by improving the way we operate our equipment. We readjusted heating equipment pressure for production lines and improved the operation mode of circulation pumps to save energy. With the improved operations in 2022, we reduced 1,530tCO₂-eq of GHG. In mid/long-term, we will actively introduce CCUS, hydrogen, and other emission cutting technologies. Also, we are gradually replacing our internal combustion vehicles to reduce carbon emissions, starting from passenger vehicles to forklifts and cargo fleets, according to our internal replacement plans and supply of EVs. Starting from August 2021, when pilot electric cargo vehicles were introduced, we have replaced the vehicles that could be replaced with EVs. As of the end of 2022, we now operate 213 EVs in total. This resulted in a GHG emissions reduction of 846tons in 2022. We also set up a mid/long-term plan to replace all vehicles that could be replaced can be replaced with EVs, including passenger vehicles, vans, cargo vehicles, and forklifts, etc., by installing more EV charging stations due to the increased use of EVs.</p>
Legal	Relevant, sometimes included	<p>[Task] In South Korea, you can be fined by the government if you fail to observe the legal obligations of the ETS. This has the potential to negatively impact our financial investment strategies and investment decisions. Due to our annual emissions, which is over 125,000 tons, we are subject to emission quotas, which must be observed.</p> <p>[Action] Lotte Chilsung Beverages recognized the compliance risks related to climate change as a key financial risks and working hard to respond to the government's policies effectively. The department responsible for managing GHG emissions monitors GHG emissions and strategies to reduce emissions every month. And, in the longer term, we declared 2040 Net Zero and engage in various activities to reduce emissions, such as energy evaluation and efficiency enhancement, expanding our EV fleets, and converting to renewable energies.</p>
Market	Relevant, sometimes included	<p>[Task] Supply chain risks can affect the direct operation and supply chains of Lotte Chilsung Beverages. With climate change, unit energy cost increased, which pushed up the cost of fertilizers and logistics. Therefore, there is a chance that the raw material costs for all of our products will go up. In addition, the energy cost can push up our procurement cost, by increasing the production cost of our suppliers.</p> <p>[Action] Lotte Chilsung Beverages has been preparing for the changes in energy cost and procure our future energy with stability by setting a goal to switch 100% of our energy to renewable energy sources by 2040. Also, Lotte Chilsung Beverages has been preparing for the drastic changes in the management environment by means of identifying risks, setting levels of responses, monitoring, case communication, training, and feedback to operate an optimized corporate risk control system. Each risk is divided into sub-level risks based on the responsibilities of the departments involved. We also established a unified system to make quick decisions and responses when there is a risk. Also, our employees are educated and trained to detect risks in advance to maintain a sustainable risk control level.</p>
Reputation	Relevant, always included	<p>[Task] Lotte Chilsung Beverages is a typical B2C company with a lot of contact points with our consumers and tough competition. Our reputation, therefore, directly affects our sales. With the increased interest in the climate issue among consumers, poor management of climate-related issues may have direct impact on our sales.</p> <p>[Action] For this, we are preventing possible risks through transparent and meticulous management of energy and water use. In addition, we, as a leading company, established our goals and roadmaps for 2040 Net Zero and RE100 in the mid/long-term. To live up to our promises, we set the CEO ESG KPIs and evaluate them with a direct impact on compensation and promotion, managing it as a key issue of the company. Lotte Chilsung Beverages is publishing annual sustainability reports and CDP Q&A to expand our communication with our customers to disclose our performance in responding to climate change with transparency and listen to the voice of interested parties actively.</p>
Acute physical	Relevant, sometimes included	<p>[Task] Extraordinary climate events may affect the supplies of our raw materials For example, natural disasters such as typhoons, heavy rains, and hot weather can affect suppliers' raw material yields, and operating costs are expected to increase due to difficulties in quality, distribution, and inventory management. This can also increase the cost due to the difficulties in managing qualities, distribution, and inventory. A sudden procurement breakdown due to the issues in our supply chains may result in a higher operating cost. Therefore, we are managing extraordinary short-term climate events as a key risk.</p> <p>[Action] We engage in a variety of supply change management policies to establish a stabilized supply environment. We established a supply change management roadmap where the ultimate goal is that our partners voluntarily reduce their environmental impacts. In 2022, as a part of this, Lotte Chilsung Beverages has introduced our 'Code of Conduct for Partners' based on the internal standards, criteria, and legal requirements to ensure social responsibilities of our suppliers and their continued compliance. The Code of Conduct include five key points of environment protection, which are compliance with laws and regulations, responding to climate crises, environmental impact reviews, water resources management, and waste managements. Also, Lotte Chilsung Beverages has been developing a sustainable supply chain. For this, we have been conducting out ESG evaluations on 17 partner companies for their potential ESG risks and current standings. The evaluation items were reshuffled to include GHG emissions and energy saving, etc., to build an evaluation system focused on the ESG. Online and field inspections were conducted to identify items of improvement after the ESG evaluations of our supply chains. We plan to repeat these evaluations by monitoring their progress with improvement. Lotte Chilsung Beverages signed the ESG Co-Existence Agreement with 17 suppliers, including two suppliers of coffee and spice, for sustainable co-prosperity. With this agreement, Lotte Chilsung Beverages plans to expand the scope of control gradually, so that we can increase the level of ESG activities through a cooperative system and preemptive responses to possible risks while the partners receive customized feedback on their performance and improvement of ESG indicators through independent evaluators.</p>

	Relevance & inclusion	Please explain
Chronic physical	Not relevant, included	<p>[Task] The long-term physical risks, such as heat waves, drought, and natural disasters, etc. may not affect the production facilities and supply changes of Lotte Chilsung Beverages in the short-term. But in the longer term, they need to be managed. The changes in rainfall patterns may cause water-stress to the production facilities of Lotte Chilsung Beverages. Also, extreme changes in rainfall patterns and water shortage due to a drought will cause disruption in the supply of water resources. This will result in reduced sales, a compromise in production capabilities, and other negative impact on our operations. For this reason, Lotte Chilsung Beverages has set and managed the supply and demand of water resources as a key risk.</p> <p>[Action] Lotte Chilsung Beverages has been operating water resources management systems to monitor water stress for the bodies of water around our business facilities to understand the risks of water stress for each factory and will continue to do so in the future. Also, we are enhancing the rate of water reuse to enhance the efficiency in water use, by means of CIP water reuse and reusing rinsing water, etc. In addition, Lotte Chilsung Beverages will develop strategies to respond to water risks more efficiently by seeking to use alternative water resources that could be used as drinking and industrial water.</p> <p>Lotte Chilsung Beverages has conducted a risk analysis on the physical scenarios.(RCP 4.5, 6.0, 8.5). Based on the scenarios, we checked the heat wave and heavy rain risks of the production facilities of Lotte Chilsung Beverages for 2023, 2050, and 2100. Also, to check the risks, we applied the MME5s model, which is the standard climate change scenario of South Korea within the climate information portal site of the National Meteorological Service. With this, we conducted a risk analysis and, based on the risk analysis, we analyzed the risks and opportunities due to climate change, calculated financial risks, and developed plans to cope with them, which were then applied to the conversion process for each location, as we manage this risks proactively. For this, Lotte Chilsung Beverages believes water supply risks and the risks of having our facilities flooded may affect our operations and result in a financial loss due to reduced sales. Therefore, in the short-term, we are improving our disaster control installations while considering relocating our facilities in the longer terms.</p>

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Lotte Chilsung Beverages is subject to the emission trading system to meet the national GHG reduction goal. Currently, Phase 3 of the ETS is in effect (2021 ~ 2025). The quotas issued to businesses are decreasing every year. While this became a steady pattern, our risks are increasing with the increase in emission due to the expansion of production capacity in South Korea and gradual increase in the share of paid quotas. This forces us to purchase more emission rights every year and increases risks. Lotte Chilsung Beverages plans to increase its production by 2 to 5%, and more equipment will be introduced to produce packaging vessels ourselves. As a result, the consumption of LNG and power will further increase. Also, in the buildings other than factories, the increased logistics volume is expected to push up the emission of GHG. While the emission of GHG has been under strict control, the insufficiency of emission rights will force us to purchase more. And, this may cause more financial strain on us in the near future.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

553760000

Potential financial impact figure – maximum (currency)

1384400000

Explanation of financial impact figure

[The approaches used in calculating the numbers]

Lotte Chilsung Beverages has been exposed to a potential risks of having to purchase emission rights if our GHG emission exceeds the quota. It is expected that the additional cost of purchasing more emission rights to cover the excess in emissions will be 830,640,000 KRW, if we do not take any actions to reduce emissions in 2023. The potential fiscal impact was calculated as “{(expected GHG emissions – target emissions) x emission rights purchase cost}”. The average emission rights cost was calculated as 30,000 KRW /tons CO₂eq, with the potential minimum price of emission rights 20,000 KRW and maximum 50,000 KRW. We expect this will result in a potential cost of 550 million to 1.38 billion KRW.

Cost of response to risk

2021000000

Description of response and explanation of cost calculation

[Task] We need to take effective actions to reduce the fiscal burden to meet the increased investment demands for purchasing emission rights and invest in reduction technologies by means of establishing our own net zero implementation systems and securing the means of reduction, which will reduce our emission and internalize such arrangements.

[Action] We must secure actionable long-term measures that are effective, in order to build the systems to achieve net zero. These measures include developing emission reduction plans by refining our 2040 Net Zero Roadmap and securing means of emissions by setting science-based reduction goals through the preparation for joining the SBTi, as well as replacing internal combustion vehicles with EVs.

[Result] In response, we have been engaged in energy saving activities through the investment in power efficiency technologies and improvement of operations, as a part of our actions to reduce emissions and secure means of reduction of emissions. In 2022, we installed a power load optimization device for motors (OPC-M) in our Anseong Factory to reduce 650tCO₂-eq of GHG per year. Also, with our energy saving actions through the improvement of operation method, we reduced 1,530tCO₂-eq of GHG. Based on such emission reduction achievements, we plan to expand our technical investment for more OPC-M devices in our production facilities, as a part of our ongoing efforts for further improvement to save energy in our facilities and increase efficiency, as all our employees work together to achieve these goals. In addition, we have been introducing more EVs, starting with electric cargo vehicles we introduced in 2021. As of 2022, we have a total of 212 vehicles that are now replace with EVs, reducing 846tCO₂-eq of GHG every year. In addition, we installed and expanded EV charging stations to ensure seamless operation of these vehicles, now totaling 42 stations.

[Formula] We have been disclosing our investment in environmentally-friendly technologies to increase energy efficiency and reduce GHG. As of 2022, the technology investment in environmentally-friendly technologies amount to 2 billion KRW, which was recognized as risk response costs. The said costs will include the installations for energy efficiency, solar panels, and charging stations for EVs.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

With the use of plastics continuing to increase around the world, the amount of plastic wastes is also increasing. This resulted in increased interest in addressing pollution. South Korean government responded to this by setting national goals, such as replacing all plastic materials with use of 30% recycled plastics by 2030 and 100% with bio plastic by 2050. In 2022, a policy of ending the use of plastic over the entire life cycles was announced, along with the expansion of the ban on the provision of disposable items and suppression of the use thereof, along with the introduction of the resource recycling deposit system, to strengthen the regulation against the use of plastic.

As a major general beverages and liquor company of South Korea, Lotte Chilsung Beverages uses plastic for most of its packaging materials. Also, we use the most plastic among all food and beverages companies of the country. Because of this, we expect an increase in the recycling charges to pay when more stringent regulations for recycling grading for plastics are introduced.

Lotte Chilsung Beverages shipped out 55,457 tons of plastic in the forms of existing PET bottles and other synthetic resins as of 2022. Due to the high dependency on plastic, a significant financial risk is expected to affect our operations when more charges are applied to us.

As the way consumers view environmentally-friendly companies change and the awareness in and activities on environmental improvement activities are included in credit ratings and investment evaluations of company, recycling of plastics can be an important issue for Lotte Chilsung Beverages.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

6039820800

Potential financial impact figure – maximum (currency)

7549776000

Explanation of financial impact figure

[The approaches used in calculating the numbers]

Lotte Chilsung Beverages may face more potential financial risks due to the recycling charges if the recycling rating regulations for plastic are strengthened. Such risks cause an increase in the technical investment for using more recycled products, making light-weight plastic products, and using more recycled materials, as well as more the recycling charges due to more stringent plastic recycling rating regulations.

As a result, we shipped out 55,457 tons of plastic in the forms of existing PET bottles and other synthetic resins as of 2022. The total ship-out volume of PET bottles is

51,012 tons, which is 92% of our total plastic emission. We calculated the financial impact of the risks considering the possibility of more stringent recycling charges requirements. The formula used to calculate the potential financial impact was "[the total PET ship-out volume of 2022 x mandatory recycling rate (80%) x unit recycling charge (as per clear, colorless PET)]". The value was calculated based on the increase of the mandatory recycling rate due to the government's regulations. The minimum value was calculated as to be the same as the potential financial value, due to the expectation that the existing mandatory recycling rate of 80% was not likely to go down. The maximum value was calculated assuming 100% mandatory recycling rate for plastics. If the recycling charges are to increase due to the strengthened government regulations in the future, the financial risks are expected to have a significant impact on the operation of the business.

Cost of response to risk

7000000000

Description of response and explanation of cost calculation

[Task] To reduce the financial burden of R&D investment due to the regulations on the use of plastic, making light-weight plastic materials, and recycling plastic wastes, we need to introduce actionable measures, such as the R&D for improving the recycling rating and making our plastic products lighter.

[Actions] Lotte Chilsung Beverages has conducting R&D programs to make the plastic products more light-weight, along with the investment in the rPET technology for mechanical recycling and chemical recycling of plastic materials and the R&D for improving the plastic recycling ratings and developing the foundations for implementation.

[Results] As a result, we plan to respond to the financial risks from using plastics by investing in making light-weight plastic products, the rPET technology, establishment of the implementation foundation, and R&D projects to improve the plastic recycling ratings, Lotte Chilsung Beverages has been engaged in the projects for making our products lighter since 2010. In 2022, lighter bottles were introduced for our Icis 200mL and 300mL mineral water, which was followed by the lighter bottles for the PET bottles for Meokneun Saembul mineral water, Tea of the Day 500mL PET (four types,) and 1.5L bottles for Milkis, etc. Also, we introduced M-rPET (mechanically recycled PET) for the first time as a beverage company in 2022, introducing our Icis 8.0 ECO 1.5L product. In the future, we plan to continue using light-weight plastic bottles for our beverages, liquor, and mineral water products, for all types and capacities, to reduce the amount of plastic missions and producing rPET.

[Calculation formula] We expect that about 7 billion KRW of technical investment will be needed for using more light-weight plastic products and investing in the rPET technologies (M-rPET and C-rPET.) This is based on the assumption that the R&D costs for the recycled materials and improving the plastic recycling grade, as well as the investment into the production facilities for producing rPET to be 1 billion KRW. This is not an annual cost but the long-term cost for about ten years to come.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical	Heat wave
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Lotte Chilsung Beverages is a general liquor and beverages company and use agricultural products as our key materials. Our primary materials include sugar (cane sugar), rice, malt, etc. Agricultural production is very sensitive to climate change. Extreme weather conditions can be critical to the production volume and quality of materials. With the physical risks due to extreme weather conditions such as heat waves, typhoons, and droughts, the disturbance in the supply and distribution of sugar (cane sugar), rice, and malt increased the materials cost and reduction in supply, which may translate into a major risk. Therefore, Lotte Chilsung Beverages has been identifying the problems in supply chains due to extreme weather conditions as a short-term physical risk.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

470726000

Potential financial impact figure – maximum (currency)

14121780000

Explanation of financial impact figure

[The approaches used in calculating the numbers]

Due to the physical impact of climate change in the future, which may endanger the supply chains of the world, it is difficult to expect how high the cost of raw materials would rise. Depending on the situation and duration of natural disasters, raw material costs can go up by 0.1% to 100%. We assumed the increase rate of raw material costs to be 1% in order to calculate the financial values of the relevant risk. The potential financial impact of the said risk was calculated as "the cost of raw materials spent for liquor and beverages in 2022 x raw material price increase rate (assumed at 1%)". As the minimum value, a material cost increase rate of 1% was assumed, while the maximum value was set to 3%.

Cost of response to risk

0

Description of response and explanation of cost calculation

[Situation] The key raw materials of the main products of Lotte Chilsung Beverages, which are beverages and liquor are agricultural products, such as sugar, rice, malt, etc. As the risks to global supply change would increase due to the physical impacts, the financial burden is increasing, too, due to the increased indirect costs. The company has been seeking a new supply route in addition to the existing ones to respond to the physical risks, as the need to reduce dependency on a single supply route is growing.

[Tasks] For Lotte Chilsung Beverage needs to secure an alternative supply route through the management of its supply network in order to reduce its financial burdens due to the disruption of its supply chains due to natural disasters, physical damages caused by the disruption in distribution, reduced supply due to climate change and increased materials cost, as well as the stoppage of international trades due to physical impacts such as an outbreak of an infectious disease, etc.

[Actions] Lotte Chilsung Beverages has been engaged in supply chain management activities to address the disruption of supply networks and distribution and an increase in raw material costs due to climate change, natural disasters, and infectious diseases.

[Results] For this purpose, we have been monitoring the areas where our raw materials are produced and climate changes in order to respond to the disruption of supply and distribution and increase in the cost of raw materials within the supply network for our raw materials, such as agricultural products, due to physical risks. However, the rise of raw material costs due to rapid changes in the climate is difficult to predict. We assumed that there is no increase in the raw material costs at the moment and did not calculate a separate cost for addressing this risk. Before such a risk realizes, Lotte Chilsung Beverages has been working on to diversify the countries of origin of our raw materials and secure alternative supply networks.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

[Increased consumer demands for environmentally-friendly products and functional health food]

Lotte Chilsung Beverages is a South Korean company selling beverages and liquor to domestic and overseas customers. With the customers in South Korea and beyond are more interested in pollution and health, the interest in environmentally-friendly products is also growing. For this, Lotte Chilsung Beverages defined our key sustainable products to be low-sugar products and functional health foods and has been engaged in R&D projects for environmentally-friendly packaging of our products to expand the list of our environmentally-friendly products.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

332524018

Potential financial impact figure – maximum (currency)

13532628000

Explanation of financial impact figure

[The approaches used in calculating the numbers]

Lotte Chilsung Beverages predicted that, with the increased demands for environmentally-friendly products and functional health foods, the sales of the related products would increase. With this, Lotte Chilsung Beverages calculated the costs for the increased sales of environmentally-friendly products and functional health foods in 2023. The formula used in the calculation of the financial costs of the potential opportunities was "[(2022 mineral water sales x share of the products without labels) + zero sugar soft drink sales] x operating profits increase rate (assumed at 1%)". The minimum value was 0.1% operating profit increase rate, while the maximum value of the operating profit increase was 3%, which were assumed for the calculation.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

[Task] Lotte Chilsung Beverages needs to increase environmentally-friendly products, with lower carbon emission and higher resource efficiency, along with functional health foods, reflecting the demands of the customers.

[Actions] Lotte Chilsung Beverages used the lifecycle portfolio to launch the products in line with the lifecycles of our customers, including organic products, low-sugar products, low-calories products, and functional health foods, etc. Lotte Chilsung Beverages has established a product portfolio which is more accessible for the consumers who prefer environmentally-friendly products and expanding product categories.

[Results] Lotte Chilsung Beverages launched a mineral water product 'Icis 8.0 Eco' and 'Icis', which are the first no-label mineral water in South Korea to secure competitiveness in the mineral water market. Lotte Chilsung Beverages plans to introduce more no-label products. Also, short labels, light-weight PET, and 'eco-cut-line' which can be used by the customers to remove labels easily, to reduce the use of plastic while making it easy for the consumers to recycle our products. In addition, recycled plastic has been investing heavily in the R&D projects to use recycled plastic and reduce the use of new plastic materials.

Lotte Chilsung Beverages launched low-sugar beverages such as 'Pepsi Zero Sugar' in January 2021 and 'Chilsung Cide Zero' in February. Also, In 2022, we launched 'Toms' a low-sugar beverage product, while re-launching our existing products, 'Hot Six,' 'Ceylon Tea,' and 'Milkis' as low-sugar products, as we expand our low-sugar product line-up. In 2022, we also launched 'Chilsung Cider Plus,' 'Deohada Three Teas' (Woeeongcha, Oksoosoooyeomcha, Boricha, and Trevi Plus) as foods with labeled functions and functional health foods. We are still strengthening our labeled functional products and functional health foods, including concentrated functional juice products (ZN, Vitamin B). Also, we are introducing more sustainable liquor products, too. In 2022, we launched a low-sugar liquor, 'Saero' and a low-calory beer, Kloud Light.

[Calculation of the management cost] As per the financial statements of 2022, the R&D costs of Lotte Chilsung Beverages in total was 26.4 billion KRW, of which 5% was used to fund the R&D projects for functional health foods and environmentally-friendly products.

Comment**Identifier**

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

[Securing competitive advantages by reducing carbon footprint]

The EU Carbon Border Adjustment Mechanism (CBAM) is a program that imposes carbon costs on imported items which do not have imposed carbon costs to a level that equals those of EU products. The program is to be introduced in 2023 and take full effect in 2026 and beyond. As a result, more stringent policies are being introduced regarding the disclosure of carbon information on exported items.

Currently Lotte Chilsung Beverages is exporting beverages and liquor to approximately 70 countries, including Japan and Russia. For this reason, it is important to sell products with a lower carbon footprint when it comes to exported products. Lotte Chilsung Beverages secured a total of 13 environmental performance certificates in various beverages, such as soft drinks, coffee, and teas (as of June 2023). This is expected to contribute to our advantages in competition and a higher sales. Also, the interest among our customers in the environment is increasing. And it turned out that they preferred low carbon products, if they were to choose among same times of products. The volume of environmentally-friendly products in the sales of 2022 was 155 billion KRW, amounting to 5.9% of total sales. We improved the environmentally-friendly sales by 2.7%p from the previous year, and it is expected that the market for environmentally-friendly would grow even further. Lotte Chilsung Beverages has been working on enhancing our environmentally-friendly sales with more low-carbon products and securing more environmental performance certificates.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1228592000

Potential financial impact figure – maximum (currency)

36857760000

Explanation of financial impact figure

[The approaches used in calculating the numbers]

With the mandatory requirements for disclosing carbon information of exported goods and the increased interest in the environment among customers, we expected that the sales of the products with environmental performance certificate would increase. For this reason, we assumed that the sales of the entire product group with an environmental performance certificate would increase when we calculated the cost. Among our products, soft drinks, coffee, and teas have such certificates. The calculation formula for calculating the financial impact was "(2022 soft drink + coffee + teas sales) x sales growth rate (assumed at 1%)" where the minimum sales growth rate was 0.1% and the maximum was 3%.

Cost to realize opportunity

24000000

Strategy to realize opportunity and explanation of cost calculation

[Tasks] Lotte Chilsung Beverages is required to manage its carbon footprint over the entire processes from obtaining its raw materials to production, distribution, use, and disposal. For this reason, it is necessary to expand the environmental performance certificates, which is based on the measurement of carbon emissions across the lifecycle of products and low-carbon certificates.

[Actions] In order to respond to climate change and the demands for environmental information disclosure, Lotte Chilsung Beverages is participating in the environmental performance certification programs which quantify the entire processes from raw materials to production, distribution, use, and disposal, as we continue our efforts to have more products certified by this program.

[Results] Lotte Chilsung Beverages is endeavoring to procure and produce environmentally-friendly products through environmental certificates and low-carbon product certificates for the products we use and those we produce.
 As a result, Lotte Chilsung Beverages purchased 14 million KRW (0.0001%) out of the total procurement volume of 984,076 million KRW in 2021, while the procurement volume was 1.36 million KRW (0.01%) out of the total procurement volume of 1,361,296 million KRW in 2022. In addition, Lotte Chilsung Beverages secured the environment performance marks for two types of Chilsung Cider products in 2021, as a result of our efforts to increase the products with such certifications. The products certified in 2022 included Coldbrew 500mL PET (3 types, which were Black, Sweet Black, and Latte), Cantata 275mL cans (two types, which were the premium latte and caramel machiatio), Tea of the Deay 500ml PETs (three types, Oksoosoosoyeomcha, Hwangeum Bori, and Achim Heotgae), totaling eight products being certified in 2022 alone.

[Calculation formular for the management cost] The environmental performance certificate of the company and the low-carbon product certificates are assumed to cost 24 million KRW for management. The cost of verification to get an environmental performance certificate was assumed to be 3 million KRW per product. And, since we obtained eight new environmental performance certificates for 2022, a total of 24 million KRW was estimated as the management cost per year.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

Lotte Chilsung Beverages has established reasonable communication channels and operation programs in line with the characteristics of different interested parties for effective communication with diversified interested parties.

Especially, we maintain an open communication channel at all times and disclose our information to the customers who purchase our products and the shareholders who purchase our company values in the form of stocks.

Based on the characteristics and interest of the interested parties, we optimize our communication strategies. For this, we use the level of understanding and cooperation with our businesses as the basis for classifying interested parties and run channels for sharing information and programs in consideration of their characteristics, for the purpose of enhancing the empathy with our vision and strategies with the interested parties inside and outside the company.

Frequency of feedback collection

Annually

Attach any relevant documents which detail your climate transition plan (optional)

Lotte Chilsung Beverage 2022 Sustainability Report : Climate change measures and the system for carbon neutrality part
 Lotte Chilsung sustainability Report(p.26~35).pdf

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA NZE 2050	Company-wide	<Not Applicable>	<p>According to the recommendation by the TCFD, Lotte Chilsung Beverages has assumed 1.5°C temperature increase and a high risk of conversion. For the analysis of the scenarios, we applied the multiple variables and policies within the IEA NZE 2050 scenario. To better understand various future conditions, such as the current impact of climate change and status quo, less than 2°C, and 1.5°C world alignment, etc., we conducted a comprehensive climate scenario analyses. Our goal is to evaluate the potential risks from climate and uncertainties.</p> <p>1) Scope of application The analysis of the climate-related scenarios was based on the physical risks on the operating facilities and value chains, conversion risks, and uncertainties. We also included the entirety of production facilities within South Korea to integrate the current and future corporate operations of Lotte Chilsung Beverages.</p> <p>2) Time range For the analysis, we integrated various time periods (short-term and mid-term) that stretch over to 2040 in order to explain the lifecycle of our internal businesses and key facilities. We set 2040 as your target year. This is 10 years earlier than the global Net Zero target year of the Paris Accord, which was 2050. Then, we set the period until 2025 as the short-term and 2030 as the mid-term, in consideration of the target year for the national contribution goal.</p> <p>[Response to the conversion risk] As for the conversion risks, we used the carbon price range in the special report by IPCC for the global warming of 1.5°C and the IEA Net Zero by 2050 scenario. The range of carbon prices according to the IEA NZE 2050 scenario was USD 51 by 2025, USD 130 by 2030, and USD 250 by 2050, indicating that the emission right prices can be much higher under the current ETS. Since we are subject to the NDC and other policies of the South Korean government, we considered the NDC scenario, as well. The South Korean government has been trying to remove coal and LNG from its energy mix while increasing the share of renewable energy in its grid.</p>
Physical climate scenarios RCP 8.5	Company-wide	<Not Applicable>	<p>[Response to physical risks] In consideration of the recommendations by the TCFD, Lotte Chilsung Beverages reviewed the RCP 4.5, 6.0, and 8.5 to analyze from the high carbon scenario with the most extreme physical risks through the low-carbon scenario assuming a higher conversion risk. And, we analyzed the acute and chronic physical risks for each period based on RCP 6.0 as specified in the 5th report of the IPCC. The scope of the analysis included the areas where our eleven production sites were located within South Korea, and the analysis was conducted based on the current status of climate risks in those areas. Also, the analysis included the statuses of the RCP 4.5, 6.0, and 8.5. First, we analyzed the scenarios in compliance with the Paris Accord, which limited the level of global warming to 1.5 °C and 2 °C. This was followed by a comparison of the two cases with the worst scenario case where no significant action is taken to reduce GHG emissions. The BAU scenario was also included in order to analyze physical risks, as was the case with the conversion risks in order to understand the scope of climate impacts comprehensively.</p> <p>Lotte Chilsung Beverages applied the MME5s model, which was the standard model scenario of the National Meteorological Service’s Climate Information Portal to analyze the risks of the physical scenarios (RCP 4.5, 6.0, and 8.5). With this, we predicted the local and national level physical environmental changes corresponding to the common density paths. Also, we considered the changes of the key risks over time (2023 ~ 2100), including the rise in the average temperature by the year and changes in rainfall. Our evaluation of heat wave risks showed that, in RCP 4.5, 6.0, and 8.5, the factories in Gyeongsan, Gwangju, Opo, and Daejeon out of our eleven production facilities within South Korea were at a higher risk of heat waves. As for the heavy rainfall risks, the risk and possibility of occurrence was higher in Yangsan, Gangreung, and Gyeongsan factories at RCP 4.5 and Yangsan, Gyeongsan, Gwangju, and Opo at RCP 6.0 and 8.5.</p>

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

Response to transition risk / Response to physical risk

Results of the climate-related scenario analysis with respect to the focal questions

[Respond to Transition risk]

1. Responding to the GHG emission risks of business facilities

Lotte Chilsung Beverages has been predicting the regulatory costs to reduce GHG to increase based on the analyses of climate scenarios. Therefore, under these scenarios, we declared 2040 Net Zero and RE100 goals in 2021. The goal of 2040 Net Zero achievement is ten years earlier than the goal of Net Zero of the global community in the Paris Accord, which was by 2050. This shows our will to proactively respond to climate change. To meet these carbon neutrality goals, Lotte Chilsung Beverages plans to achieve the RE100 goal by replacing the entire of our electricity with the power from renewable energy sources to power our beverages and liquor factories and logistics centers by the year of 2040.

2. Responding to the risks related to product raw materials

Lotte Chilsung Beverages is handling the issue of plastics with more care due to more stringent plastic policies in South Korea and beyond, which include the policies for recycling plastics and the regulations on single-use plastic items. To reduce the use of plastics and reuse plastic materials, we have established a virtuous circle of resources recycling. To implement this, we set the four plastic reduction strategies of reducing plastic emissions, using more recycled plastic materials, making recycling easier, and enhancing the awareness on resources recycling and established a roadmap to end the use of plastics. By making our PET bottles more light-weight and increasing the number of products with no labels or short labels, we are reducing the emissions of plastic. We also launched products which use rPET, which is made from recycled materials, and recycled films. To set the quantitative goals for the plastics roadmap, we are currently conducting an internal review. In order to expand the use of recycled plastics in the next year, mid-term, and long-term, we set the recycled plastic use goal and, in line with the government’s policies, we will not spare any expenses for the R&D and investment to meet the government’s policy to end the use of plastics.

[Respond to Physical risk]

Lotte Chilsung Beverages has conducted a risk analysis on the physical scenarios. (RCP 4.5, 6.0, 8.5). Based on the scenarios, we checked the heat wave and heavy rain risks of the production facilities of Lotte Chilsung Beverages for 2023, 2050, and 2100. Also, to check the risks, we applied the MME5s model, which is the standard climate change scenario of South Korea within the climate information portal site of the National Meteorological Service. With this, we conducted a risk analysis and, based on the risk analysis, we analyzed the risks and opportunities due to climate change, calculated financial risks, and developed plans to cope with them, which were then applied to the conversion process for each location, as we manage this risks proactively.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>Lotte Chilsung Beverages is aware of the environmental issues within the value chain and our operations and intends to realize the opportunities and respond to the climate change crises in our own ways. Lotte Chilsung Beverages also aims to minimize the environmental impact of our business operations through the reduction of GHG and recycling of resources and engage in the maximization of the environmental benefits.</p> <p>As a part of these efforts, Lotte Chilsung Beverages continues to understand the issues of environment and performing environmentally-friendly activities to improve the environment, such as reducing the amount of waste from the sources and improving the materials and structures of our packaging materials, etc. Lotte Chilsung Beverages has been engaged in a variety of activities to reduce the volume of waste themselves.</p> <p>By making the bottles of our mineral water products lighter, we could reduce the use of plastic per year by 116 tons. Also, we introduced the lighter PET bottles for the Tea of the Day products (500mL) in 2022 to reduce their weight from 28g to 24g, by about 14%. Also, the PET bottle of 1.5L Milkis was also reduced from 44g to 42g. Lotte Chilsung Beverages launched its no-label mineral water Icis 8.0 ECO for the first time in January 2020 and increasing the use of no-label packaging for other products such as sparkling water, Chilsung Cider, Pepsi, and Contrabass, etc. Also, we are producing no-label NB cans, so that our products sold online are packaged in no-label cans.</p> <p>As a result, in 2022, we sold 24.25 million boxes of no-label products, which was up by 1,670% compared to the previous year. By converting the amount of plastic that would have been used as the labelling materials, we concluded that we could reduce 129 tons of packaging waste. In addition, we reduced the labeling area for the existing Icis products by 38% in 2023, which would reduce another 12 tons of plastic use.</p>
Supply chain and/or value chain	Yes	<p>Lotte Chilsung Beverages has been engaged in various activities with our suppliers to respond to climate change. Especially to make our packages easier to recycle, we have been working with our plastic materials supplier, which is Lotte Chemical, to increase the use of recycled plastic materials. Also, we are preparing an environmentally-friendly logistics system by understanding the carbon foot print of Lotte Logistics, which is responsible for the logistics part.</p> <p>Lotte Chilsung Beverages has been engaged in the RE:Green campaign since 2021 to decrease the use of oil-oriented plastic and use more recycled plastic materials to establish a sustainable resource recycle economy. As a part of the RE:Green campaign, we have installed the PET bottle return boxes in eleven customer premises in Seoul. And, by upcycling the PET bottles we recovered ourselves, we manufactured environmentally-friendly uniforms. In 2023, Lotte Chilsung Beverages has joined the Zero Seoul Business Practice Group to secure a resource recycle value chain and upgrade the system. When Lotte Chilsung Beverages recollects its empty PET bottles, the contractors of Lotte Chemicals take them to recycle them in the form of flakes to turn these bottles into resources. Using this as the material, Lotte Chemical is planning for conducting rPET research and working with outside partners to manufacture upcycled products. In addition, we have entered a cooperation agreement with the District of Songpa to promote the clear PET bottle recycling programs and encourage participation by the residents through events, etc. Since 2021, we have been operating a PET bottle return program, which recollected 18 tons of empty PET bottles in 2022.</p>
Investment in R&D	Yes	<p>To reduce the amount of waste materials from being generated in the first place, Lotte Chilsung Beverages has been working on using recycled materials made from waste plastics. In 2021, for the first time in the South Korean beverage industry, Lotte Chilsung Beverages used rPET materials for Icis 8.0 ECO 1.5L to launch a product using recycled PET containers. In 2022, we launched Icis 8.0 ECO 1.5L, which is based on 10% recycled plastics and the M-rPET (Mechanical Recycling PET). We are also investing in the R&D projects and equipment to use C-rPET (Chemical Recycling PET) materials and, by securing recycled materials and verifying the quality, plan to work with local governments and engage in R&D for the production of M-rPET and C-rPET. In the future, we also plan to increase the ratio of recycled materials by reviewing the application of bioplastics once they are commercially available. In addition to rPET, we have applied recycled plastic materials to the contraction film, which is a necessary packaging material for the distribution process of our products. In cooperation with Dow Chemical, a global chemicals company in 2022, we developed an environmentally-friendly film by mixing in 20% recycled PE, in 2022. Also, we are looking into using PO labels and washable inks, which are novel environmentally-friendly packaging materials. We plan to reduce oil-originating plastic in our products and increase the share of recycled materials to expedite the production of environmentally-friendly products.</p>
Operations	Yes	<p>Lotte Chilsung Beverages has been working on to reduce GHG to meet the goals of Net Zero and RE100 by 2040. For each business facility, we set goals to reduce GHG and energy source goals. To meet these goals, we replaced out lightings with LEDs and upgraded our equipment to enhance their efficiency and recollect waste heat, etc., along with other proactive measures to improve GHG and energy efficiency.</p> <p>Also, we have planned for the fulfillment of the RE:100 goals by utilizing the implementation measures for RE:100 proactively, such as installing more solar panels in our business facilities, introducing green premiums, third-party PPAs, and REC purchasing, etc. By installing solar panels in our Anseong factory, we are using the electricity from the panels for our own operation. In 2023, we plan to install more solar panels in our Anseong Injection Forming Plant. Further, we have purchased 5.8GWh of Green Premium to meet the RE100 goal. In mid/long-term, we will actively introduce CCUS, hydrogen, and other emission cutting technologies.</p> <p>Lotte Chilsung Beverages has been replacing its vehicle fleet with EVs, starting with the introduction of electric carbo vehicles in 2021 to meet the 2022 regulations. As of the end of 2022, we are running a total of 212 electric vehicles to reduce our carbon emissions. In addition, we installed and expanded EV charging stations to ensure seamless operation of these vehicles, now totaling 42 stations. And, we plan to further expand these infrastructures for charging EVs with the expansion of our EV fleet.</p>

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Indirect costs Capital expenditures	<p>[Response to physical risks]</p> <p>1) Acute: Recently, heat waves, typhoon, and other natural disasters have caused physical damages, including disruption of production capabilities of the supply chain and disruption of logistics, etc. In addition, the export/import between nations can be blocked due to the physical impacts such as an infectious disease. Such physical impacts will disrupt the supply of raw materials due to the reduction of supply and increase in the cost of the materials. We have secured alternative supply chains in order to respond to such supply chain issues due to climate change.</p> <p>2) Chronic: Also, extreme changes in rainfall patterns and water shortage due to a drought will cause disruption in the supply of water resources. This will result in reduced sales, a compromise in production capabilities, and other negative impacts on our operations. For this reason, Lotte Chilsung Beverages has been monitoring the water stress of each of our business facilities to reduce the impact of such risk. In addition, we have been increasing the recycling rate of process water by recycling the CIP water and reusing rinsing water, etc., and conducting R&D projects to secure alternative water resources that could serve our needs for drinking water and industrial water.</p> <p>[Conversion risks]</p> <p>1) Policy and regulations: With the demands for compliance with the policies and regulations related to climate change, such as the worldwide carbon emission control measures and carbon taxes, we expect the cost of technical R&D to reduce carbon footprint would increase. Also, we expect to spend more on the purchase of worldwide GHG emission rights due to the implementation of carbon neutrality. To respond to such risks, Lotte Chilsung Beverages has established and refined the 2040 Net Zero roadmap based the development of the goals and strategies for reducing GHG in a science-based and effective manner.</p> <p>2) Reputation: Lotte Chilsung Beverages is a typical B2C company with a lot of contact points with our consumers and tough competition. Our reputation, therefore, directly affects our sales. Consumers are now paying more attention to issues such as climate change, biodiversity, and other issues, the preference for the use of environmentally-friendly is now increasing among consumers. For this reason, active measures by businesses for environmental issues are now needed. The sales of the company can be increased or shrink depending on the customers' trust in us. In response, Lotte Chilsung Beverages has been conducting environmental education programs, campaigns, water quality improvement movements, and biodiversity preservation campaigns, etc., to expand our environmental preservation activities and honor our social responsibilities.</p> <p>[Opportunities]</p> <p>1) Energy : By using renewable energies more proactively, we can strengthen the related industrial ecosystems in South Korea and beyond, while reducing the cost of purchasing GHG emission rights. To boost the GHG reduction effect through the expansion of renewable energy, we established a mid/long-term roadmap including the mid/long-term implementation for RE100 for different means while identifying and strengthening ties with the domestic and overseas renewable energy projects, including third-party PPAs and self-generation, etc.</p> <p>2) Resources: Lotte Chilsung Beverages has been boosting its R&D efforts due to the increased need for establishing resources recycling systems in South Kore and beyond and increasing the use of recycled materials. This is expected to help reduce production costs and operation costs. Also, reducing the use of plastic by means of using recycled materials and upgrading our recycling economy will contribute to our reputation. Lotte Chilsung Beverages has developed resource recycling processes and roadmaps to build a resource recycling economy. Also, we will increase products with no labels or short labels on PET bottles to reduce the use of plastics, while we strengthen our efforts to recycle plastic by means of providing training for waste plastic recycling, making our plastics easier to recycle, and implementing a PET bottle return program.</p>

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with our climate transition plan	<Not Applicable>

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

CAPEX

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

<Not Applicable>

Objective under which alignment is being reported

<Not Applicable>

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

2020954500

Percentage share of selected financial metric aligned in the reporting year (%)

3.16

Percentage share of selected financial metric planned to align in 2025 (%)

10

Percentage share of selected financial metric planned to align in 2030 (%)

30

Describe the methodology used to identify spending/revenue that is aligned

Lotte Chilsung Beverages selected CAPEX as the indicator of the financial statement related to the climate conversion plan. Of the 64,029 million won, which was the budget for all construction projects in 2022, the expenditure for the environmentally-friendly construction works was 2.021 million won, which was a CAPEX expenditure of 3.16%. Lotte Chilsung Beverages has declared its goal to achieve RE100 by 2040. And, in accordance with the implementation route of the SBTi, which is the science-based reduction goal, must reduce its carbon emissions by 50% by the year of 2030. For this reason, we expect at least 10% and 30% of CAPEX expenditures in 2025 and 2030, respectively.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

<Not Applicable>

Base year

2018

Base year Scope 1 emissions covered by target (metric tons CO2e)

68747

Base year Scope 2 emissions covered by target (metric tons CO2e)

107009

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

175756

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

39

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

61

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:

Purchased goods and services (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

50.4

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

87174.976

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

53530

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

105844

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

159374

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

18.4938029165253

Target status in reporting year

New

Please explain target coverage and identify any exclusions

No exceptions

Plan for achieving target, and progress made to the end of the reporting year

Lotte Chilsung Beverages has recognized the seriousness of the climate crisis, declared carbon neutrality by 2040 to reduce SCOPE 1 and 2 and been implementing the plan. To establish a trust-worthy implementation route for Net Zero, we set and input the short, mid, and long-term goals of SBTi in the reporting years and submitted the implementation plan. For the Net Zero scenario, we have established our roadmap as per the SBTi 1.5 °C criterion.

Until now, Lotte Chilsung Beverages has implemented short-term measures such as switching to EVs, replacing equipment with those with higher efficiency, and installing solar panels in our business facilities. Also, we plan to install additional solar panels in 2023 after we conduct a validity assessment and safety review of structures. In the mid/long-term, we will proactively introduce carbon footprint reduction technologies such as CCUS and hydrogen technologies.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 2

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

<Not Applicable>

Base year

2018

Base year Scope 1 emissions covered by target (metric tons CO2e)

68747

Base year Scope 2 emissions covered by target (metric tons CO2e)

107009

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

175756

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

39

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

61

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

<Not Applicable>

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2040

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

53530

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

105844

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

159374

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

9.32087666992876

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

No exceptions

Plan for achieving target, and progress made to the end of the reporting year

Lotte Chilsung Beverages has recognized the seriousness of the climate crisis, declared carbon neutrality by 2040 to reduce SCOPE 1 and 2 and been implementing the plan. To establish a trust-worthy implementation route for Net Zero, we set and input the short, mid, and long-term goals of SBTi in the reporting years and submitted the implementation plan. For the Net Zero scenario, we have established our roadmap as per the SBTi 1.5 °C criterion.

Until now, Lotte Chilsung Beverages has implemented short-term measures such as switching to EVs, replacing equipment with those with higher efficiency, and installing solar panels in our business facilities. Also, we plan to install additional solar panels in 2023 after we conduct a validity assessment and safety review of structures. In the mid/long-term, we will proactively introduce carbon footprint reduction technologies such as CCUS and hydrogen technologies.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 3

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Base year

2022

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

1434778

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

51195

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

22556

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

38924

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

918

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

176

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

4894

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

30820

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

2448

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

1586709

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1586709

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

90.42

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

3.23

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

1.42

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

2.45

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

0.06

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

0.01

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

0.31

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

1.94

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

0.15

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

25

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

1190031.75

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

1434778

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

51195

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

22556

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

38924

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

918

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

176

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

4894

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

30820

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

2448

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

1586709

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1586709

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Please explain target coverage and identify any exclusions

[Category 8] Upstream rental assets will be subject to Scopes 1 and 2 as for the carbon footprint of these assets. Therefore, they were excluded from Scope 3.

[Category 9] As for the downstream transportation, the transportation contractors have been reported as Scope 1 and 2 to Lotte Chilsung Beverages. Therefore, they were excluded from Scope 3.

[Categories 10, 11, 14, 15] were excluded since they were not applicable.

Plan for achieving target, and progress made to the end of the reporting year

There has not been any reduction activities for Scope 3. However, for the Scope 3 GHG reduction, we calculated Categories 1 through 15 for Scope 3 across the company in 2022. After this, Lotte Chilsung Beverages plans to secure funds for training and equipment support so that our suppliers may join Scope 3 reduction. Also, we will develop policies for preferred procurement of low-carbon products to proactively execute Scope 3 reductions.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 4

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Base year

2022

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

1434778

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

51195

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

22556

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

38924

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

918

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

176

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
4894

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
30820

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
2448

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
1586709

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
1586709

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
90.42

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
3.23

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
1.42

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
2.45

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
0.06

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
0.01

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
0.31

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

1.94

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

0.15

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

90

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

158670.9

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

1434778

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

51195

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

22556

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

38924

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

918

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

176

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

4894

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

30820

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

2448

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

1586709

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1586709

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Please explain target coverage and identify any exclusions

[Category 8] Upstream rental assets will be subject to Scopes 1 and 2 as for the carbon footprint of these assets. Therefore, they were excluded from Scope 3.

[Category 9] As for the downstream transportation, the transportation contractors have been reported as Scope 1 and 2 to Lotte Chilsung Beverages. Therefore, they were excluded from Scope 3.

[Categories 10, 11, 14, 15] were excluded since they were not applicable.

Plan for achieving target, and progress made to the end of the reporting year

There has not been any reduction activities for Scope 3. However, for the Scope 3 GHG reduction, we calculated Categories 1 through 15 for Scope 3 across the company in 2022. After this, Lotte Chilsung Beverages plans to secure funds for training and equipment support so that our suppliers may join Scope 3 reduction. Also, we will develop policies for preferred procurement of low-carbon products to proactively execute Scope 3 reductions.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2021

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2020

Consumption or production of selected energy carrier in base year (MWh)

172529

% share of low-carbon or renewable energy in base year

0

Target year

2040

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

0.33

% of target achieved relative to base year [auto-calculated]

0.33

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

[Goal] Switch the power supply of all business facilities to renewable power

Plan for achieving target, and progress made to the end of the reporting year

[Description of the plans to achieve the goal]

Lotte Chilsung Beverages declared RE100 in 2021 to actively join the efforts to respond to climate changes and developed the implementation plan to replace all our power with renewable electricity by 2040.

[The activity that contributed to the achievement of the goal most significantly]

As the first measure to achieve RE100, Lotte Chilsung Beverages has been proceeding with the installation of solar panels in business facilities to generate our own electricity. The business facilities went through validity evaluations for the introduction of solar panels, and we are conducting our reviews to ensure that as many business facilities can switch to self power generation as possible. Currently, our Chungju Factory and Ansong Factory are already using solar power after installing solar panels. During the report year, we are additionally installing solar panels in our Ansong Injection Molding Factory.

We plan to make technical investments in places where not sufficient solar panels are installed. For other shortages, we will actively use RE100 implementation methods such as green premium, 3rd party PPA, and REC procurement, as a part of our plan to achieve RE100.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs2

Target year for achieving net zero

2040

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Please explain target coverage and identify any exclusions

there is no exclusion.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

[The amount of emissions to be neutralized as of the target year of Net Zero]

Lotte Chilsung Beverages plans to achieve Net Zero by the year of 2040 compared to the baseline in 2018, when the total emission volume was 175,756tonCO2.

[The plans for neutralizing the remaining emissions; milestones and investment plans for the implementation of the plan]

For this, Lotte Chilsung Beverages has established its carbon neutrality plans for the short, mid, and long-term, separately.

To reduce the volume of GHG emission, in the short-term, we will install OPCMs, improve aged equipment, and reuse unused energy to improve efficiency. In the mid-term, we will utilize renewable energy such as solar power and PPA, while replacing more of our fleet with EVs. In the long term, we will complete our conversion to EVs and consider connecting with the global RE100, as we introduce hydrogen vehicles, hydrogen-mix-in boilers, CCUS, and conduct further fuel switching.

In the mid/short-term, Lotte Chilsung Beverages will invest 5 billion won into equipment to meet the Net Zero goals.

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	
To be implemented*	2	5506
Implementation commenced*	2	283
Implemented*	3	2828
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives
---	-------------------

Estimated annual CO2e savings (metric tonnes CO2e)

650

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

178463502

Investment required (unit currency – as specified in C0.4)

300000000

Payback period

1-3 years

Estimated lifetime of the initiative

1-2 years

Comment

Lotte Chilsung Beverages is currently adopting motor power load control devices (OPC-M) in our business facilities as a part of our energy efficiency enhancement project. Unlike existing motor speed control units through frequency adjustment like inverters, the motor power load optimal control unit (OPC-M) is a device that reduces energy by adjusting the effective power of axial power that changes in real time.

Lotte Chilsung Beverage identified the status of motor operation status that can be applied to each business site and reviewed its installation from 2020, and installed an OPC-M in its Anseong factory in 2022 to reduce 650tonCO₂ every year. We are planning to continue expand the installation of OPC-Ms in our business sites in the future. [Power reduction 1,416,377kwh/year X KRW126/kwh = KRW178,463,502]

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
---	----------------------

Estimated annual CO₂e savings (metric tonnes CO₂e)

1530

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

189232092

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Lotte Chilsung Beverage is selecting reduction items for each production plant to reduce CO₂ emissions through increasing energy efficiency. To reduce unnecessary energy consumption through improved operation methods in 2022, we discovered many items for each business site, where we carried out a total of 17 items to reduce 1,530tonCO₂ in annual emissions. Energy saving items include the readjustment of heating equipment in production lines, improving circulation pump operation methods, and replacement of hot water for the boiler water supply. Lotte Chilsung Beverage will continue to discover items to reduce energy usage for reducing CO₂ emissions internally and carry out improvement activities, where we will not spare any investment if necessary.

[(Energy saving 868,842kwh X KRW126) + (Fuel savings 132,930m³ X KRW600)] = KRW189,232,092]

Initiative category & Initiative type

Transportation	Company fleet vehicle replacement
----------------	-----------------------------------

Estimated annual CO₂e savings (metric tonnes CO₂e)

648

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

12960000

Investment required (unit currency – as specified in C0.4)

1350000000

Payback period

11-15 years

Estimated lifetime of the initiative

11-15 years

Comment

Lotte Chilsung Beverage currently owns 2,500 vehicles including passenger cars, vans, and trucks for the sale and transportation of products. We are gradually transitioning from combustible engine to eco-friendly vehicles to reduce CO₂ emissions from vehicles. By transitioning vehicles that can be switched with electric vehicles, we are operating a total of 212 electric vehicles as of late 2022. Furthermore, we installed an electric vehicle charging station in major branches so the use of electric vehicles do not interfere with sales activities. Lotte Chilsung Beverage will continue to expand electric vehicle charging infrastructure through expanding electric vehicles.

[648tonCO₂ X 20,000(assuming emissions trading price) = KRW12,960,000]

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for other emissions reduction activities	Lotte Chilsung beverage is reviewing various technology investments to achieve carbon neutrality and RE100 by 2040 and is analyzing the level of implementation and profitability. If internal investment is decided through this analysis, we are planning to allocate a dedicated budget for activities to reduce emissions in the next year. Through these methods, a budget for technology investment for energy reduction projects and solar panel installation is allocated and executed, where funds are allocated separately for purchasing green premium related to RE100 implementation, REC, and PPA.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify (Environmental Product Declaration)

Type of product(s) or service(s)

Other	Other, please specify (Beverage)
-------	----------------------------------

Description of product(s) or service(s)

To respond to climate change and demands for environmental information disclosure, Lotte Chilsung Beverage is obtaining environmental performance certificates for products produced in our company. The environmental performance certificate quantifies and discloses environmental impacts in all processes from raw material collection, production, distribution, usage, and disposal, where environmental impacts for all processes including resource footprint, carbon footprint, ozone layer impact, acid rain, eutrophication, photochemical smog, and water footprint are evaluated to receive the certification.

Lotte Chilsung Beverage received environmental performance certificate for 2 products of Chilsung Cider in 2021, followed up by Cantata in 2022 as the first coffee product, and added 3 types of Today's Tea to receive 8 additional certifications. In 2023, we received additional certifications for 3 types Chilsung Cider and obtained environmental performance certificate for a total of 13 products. We are planning to continue to quantify the evaluation of all processes or our products from production to disposal and continue to expand our environmental performance certificates.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Methodology for Environmental Life-Cycle Assessment of Information and Communication Technology Goods, Networks and Services (ITU-TL.1410)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

End-of-life stage

Functional unit used

kgCO2/EA

Reference product/service or baseline scenario used

Environmental performance certificate calculates the LCA of the whole process of ingredient, production, usage, and disposal stage, and evaluates 7 impacts including carbon footprint, resource footprint, ozone layer impacts, acid rain, eutrophication, photochemical smog, and water footprint.

Life cycle stage(s) covered for the reference product/service or baseline scenario

End-of-life stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

2.38

Explain your calculation of avoided emissions, including any assumptions

Lotte Chilsung Beverage applied the LCA evaluation method to estimate avoidance emissions. We added carbon emissions for each stage, where the performance was calculated based on products certified up to 2022.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

5.9

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1 2018

Base year end

December 31 2018

Base year emissions (metric tons CO2e)

68747

Comment

Scope 2 (location-based)

Base year start

January 1 2018

Base year end

December 31 2018

Base year emissions (metric tons CO2e)

107009

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 1: Purchased goods and services

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

1434778

Comment

Scope 3 category 2: Capital goods

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

51195

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

22556

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

38924

Comment

Scope 3 category 5: Waste generated in operations

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

918

Comment

Scope 3 category 6: Business travel

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

176

Comment

Scope 3 category 7: Employee commuting

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

4894

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

30820

Comment

Scope 3 category 13: Downstream leased assets

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

2448

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Korea GHG and Energy Target Management System Operating Guidelines

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

53530

Start date

January 1 2022

End date

December 31 2022

Comment

The emissions amount were verified by the emissions trading system.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

68747

Start date

January 1 2021

End date

December 31 2021

Comment

The emissions amount were verified by the emissions trading system.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

Korea is location-based because only 1 coefficient from 1 location of Korea Electric Power Corporation. If the national power supply structure changes (when purchasing through power plants (PPA)), it may be applied as market-based.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

105845

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2022

End date

December 31 2022

Comment

The emissions amount were verified by the emissions trading system.

Past year 1

Scope 2, location-based

107009

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2021

End date

December 31 2021

Comment

The emissions amount were verified by the emissions trading system.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1434778

Emissions calculation methodology

Supplier-specific method
Average data method
Spend-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

36

Please explain

We calculated the total upstream emissions of products purchased by Lotte Chilsung Beverage for all products such as raw materials, packaging, and finished products.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

51195

Emissions calculation methodology

Average data method
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

It was calculated based on capital goods that were purchased to be used in excess of the accounting period (1y) for it to be classified as tangible assets in the statement of financial position. It includes asset acquisition and tangible assets (buildings, machinery, construction, structures, equipment, etc.), and labor and consumable products were excluded from purchase.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

22556

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculated the total upstream emissions for scope 1 and 2 emissions sources for product production.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

38924

Emissions calculation methodology

Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculated the CO2 emissions generated when the transport provider uses vehicles. (Full-range calculation)

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

918

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculated the total emissions of the waste disposal company during the waste disposal process.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

176

Emissions calculation methodology

Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculated the emissions related to business trips of all Lotte Chilsung Beverage employees.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

4894

Emissions calculation methodology

Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculated the estimated emissions related to the commute of all employees.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

CO2 emissions from operating leased assets were reported to scope 1 and 2 in the emissions receipt and excluded from scope 3 calculation.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The transport provider reports it in scope 1, 2 of the emissions receipt for Lotte Chilsung Beverage and excluded from scope 3 calculation.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

This category is not applied as products sold by a third party is not processed by our company.

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

It is not applied as Lotte Chilsung Beverage is a beverage manufacturing company that does not use energy during the use of products.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

30820

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

It was calculated by assuming all products produced by Lotte Chilsung Beverage was disposed. It was assumed Lotte Chilsung Beverage products were consumed upon purchase as a consumer product, so the life cycle following product use was not considered.

Downstream leased assets**Evaluation status**

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2448

Emissions calculation methodology

Lessor-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions calculated through operating a leaseholder among assets held by Lotte Chilsung Beverage was calculated.

Franchises**Evaluation status**

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

It was excluded from calculation as it was not relevant to our business.

Investments**Evaluation status**

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

It was excluded from calculation as it was not relevant to our business.

Other (upstream)**Evaluation status****Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain**Other (downstream)****Evaluation status****Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1 2021

End date

December 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)

894.4

Scope 3: Employee commuting (metric tons CO2e)

1017

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

22771

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

3992

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

No

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities

Sugar

Do you collect or calculate GHG emissions for this commodity?

Yes

Reporting emissions by

Total

Emissions (metric tons CO2e)

34641173

Denominator: unit of production

<Not Applicable>

Change from last reporting year

This is our first year of measurement

Please explain

Lotte Chilsung Beverage is calculating emissions for domestic workplaces, where we are undergoing data collection for our overseas workplaces as we plan to calculate and manage its future emissions. Lotte Chilsung Beverage calculated the purchase of category 1 while calculating scope 3. This category accounts for 90.42% of scope 3 emissions, where we calculated the total upstream emissions based on purchase volume (kg). Among them, sugar accounts for about 14.3% of all raw materials in the beverage and liquor sector, which is a major raw material in the business.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future

<Not Applicable>

Agricultural commodities

Other, please specify (Grain)

Do you collect or calculate GHG emissions for this commodity?

Yes

Reporting emissions by

Total

Emissions (metric tons CO2e)

68433

Denominator: unit of production

<Not Applicable>

Change from last reporting year

This is our first year of measurement

Please explain

Lotte Chilsung Beverage is calculating emissions for domestic workplaces, where we are undergoing data collection for our overseas workplaces as we plan to calculate and manage its future emissions. Lotte Chilsung Beverage calculated the purchase of category 1 while calculating scope 3. This category accounts for 90.42% of scope 3 emissions, where we calculated the total upstream emissions based on purchase volume (kg). Among them, grains (rice, sweet potato, tapioca, etc.), which are raw materials for making alcohol, account for about 7.9% of the total raw materials for beverages and liquors.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future

<Not Applicable>

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

6e-7

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

159375

Metric denominator

unit total revenue

Metric denominator: Unit total

2642308000000

Scope 2 figure used

Location-based

% change from previous year

19.5

Direction of change

Decreased

Reason(s) for change

Change in output

Please explain

Lotte Chilsung Beverage reduced emissions by 2.1% while increasing production by 5.3% and increasing sales by 12.7%. Following the emissions reduction compared to increased sales, our YoY carbon intensity has decreased.

Our YoY carbon intensity was 0.00000075, a 19.5% decrease from this year.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	51464	IPCC Second Assessment Report (SAR - 100 year)
CH4	1744	IPCC Second Assessment Report (SAR - 100 year)
N2O	322	IPCC Second Assessment Report (SAR - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Republic of Korea	53530

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Head office	2540	37.5145	127.1012
Gwangju Factory	794	35.1993	126.878
Daejeon Plant	4732	36.4458	127.3952
Anseong Plant	10544	36.9769	127.2623
Anseong 2nd Plant	258	36.9637	127.2522
Yongsan Plant	5406	36.3633	129.0445
Opo Plant	5834	37.3748	127.2516
Jeju Plant	2	33.2668	126.6408
Gangneung Plant	2769	37.7414	128.871
Gyeongsan Plant	174	35.8936	128.848
Gunsan Plant	142	35.9765	126.6517
Cheongju Plant	0	36.7228	127.5915
Chungju Plant	2859	37.0058	127.8346
Chungju 2nd Plant	5659	36.975	127.8191
Jincheon plant	15	36.873	127.519
Others(Logistics center, branches) - domestic	11802		

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

No

C-AC7.4c/C-FB7.4c/C-PF7.4c

(C-AC7.4c/C-FB7.4c/C-PF7.4c) Why do you not include greenhouse gas emissions pertaining your business activity(ies) in your direct operations as part of your global gross Scope 1 figure? Describe any plans to do so in the future.

	Primary reason	Please explain
Row 1	Not an immediate business priority	Among the directly operated business sites, there are no global business sites directly controlled by the company that are related to our business. In the future, we plan to calculate GHG emissions when directly operated global business sites are included (mergers and acquisitions, etc.).

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Republic of Korea	105845	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Head office	778	
Gwangju Plant	953	
Daejeon Plant	6080	
Anseong Plant	23356	
Anseong 2nd Plant	415	
Yongsan Plant	5377	
Opo Plant	6480	
Jeju Plant	191	
Gangneung Plant	4467	
Gyeongsan Plant	535	
Gunsan Plant	30753	
Cheongju Plant	404	
Chungju Plant	3713	
Chungju 2nd Plant	5691	
Jincheon Plant	1296	
Anseong Injection Plant	8850	
Others(Logistics center, branches) - domestic	6506	

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	165.388	Decreased	0.1	Solar panels were installed in business sites in 2022 which increased the consumption of renewable energy through self-generation, achieving emissions reduction effects.
Other emissions reduction activities	16216	Decreased	10.17	Lotte Chilsung Beverage increased production by 5.3% in 2022 compared to the previous year. The reason why the operation of production facilities increased with the reduction of GHG emissions was thanks to internally discovering and carrying out emissions reducing methods for efficient energy usage. Our company achieved GHG reduction effects through investing in eco-friendly technology such as energy efficiency increasing projects as well as improving operating method and efficiency.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	267355	267355
Consumption of purchased or acquired electricity	<Not Applicable>	0	178898	178898
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	102500	102500
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	168	<Not Applicable>	168
Total energy consumption	<Not Applicable>	168	548753	548921

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

3837

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

3837

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Methane gas generated in the anaerobic digestion tank of the wastewater treatment process is collected and used for on-site steam power generation.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

52134

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

52091

MWh fuel consumed for self-generation of steam

43

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

211385

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

11365

MWh fuel consumed for self-generation of steam

200020

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

267355

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

63455

MWh fuel consumed for self-generation of steam

203900

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	168.31	168.31		
Heat				
Steam				
Cooling				

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Republic of Korea

Consumption of purchased electricity (MWh)

178898

Consumption of self-generated electricity (MWh)

168.31

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

369856

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

548922.31

C8.2h

(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Country/area of consumption of purchased renewable electricity

Republic of Korea

Sourcing method

Default delivered renewable electricity from the grid, supported by energy attribute certificates

Renewable electricity technology type

Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

426.67

Tracking instrument used

Korean REC

Country/area of origin (generation) of purchased renewable electricity

Republic of Korea

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)

2020

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2020

Additional, voluntary label associated with purchased renewable electricity

No additional, voluntary label

Comment

C8.2i

(C8.2i) Provide details of your organization's low-carbon heat, steam, and cooling purchases in the reporting year by country/area..

Sourcing method

None (no purchases of low-carbon heat, steam, or cooling)

Country/area of consumption of low-carbon heat, steam or cooling

<Not Applicable>

Energy carrier

<Not Applicable>

Low-carbon technology type

<Not Applicable>

Low-carbon heat, steam, or cooling consumed (MWh)

<Not Applicable>

Comment

C8.2j

(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

Country/area of generation

Republic of Korea

Renewable electricity technology type

Solar

Facility capacity (MW)

433.2

Total renewable electricity generated by this facility in the reporting year (MWh)

500.9

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

139.27

Energy attribute certificates issued for this generation

Yes

Type of energy attribute certificate

Korean REC

Comment

Lotte Chilsung Beverage installed solar generation facilities in our Anseong factory. Until July 2022, generated solar energy was sold to Korea Electric Power Corporation, where we transitioned to self-consumption from August 2022 through technological investment.

Country/area of generation

Republic of Korea

Renewable electricity technology type

Solar

Facility capacity (MW)

30.6

Total renewable electricity generated by this facility in the reporting year (MWh)

29.03

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

29.03

Energy attribute certificates issued for this generation

Yes

Type of energy attribute certificate

Korean REC

Comment

Solar facilities were installed in Lotte Chilsung Beverage Chungju 2 plant, where all generated power is self-consumed.

C8.2k

(C8.2k) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.

After joining RE100 in Dec. 2021, Lotte Chilsung Beverage is establishing and implementing strategies internally to transition into renewable energy until 2040. Currently, solar panels are installed in Chungju 2 plant and Anseong plant for self-generation, where installation in the Anseong injection plant is being carried out for 2023. We are carrying out structural evaluation if solar panels can be installed in Lotte Chilsung Beverage's production facilities. Currently, it is expected that we can achieve about 20% towards RE100 through self-generation using solar panels.

We are reviewing the purchase of third-party PPA and REC capable of achieving RE100, where it will be operated appropriately through feasibility reviews. Because the installation of solar panels and PPA, etc. take a relatively long time for feasibility reviews, Lotte Chilsung Beverage plans to apply a green premium starting from 2023. We purchased the green premium for the first time in 2023, and we are carrying out additional reviews for purchasing for a certain percentage in the future.

Currently, Lotte Chilsung Beverage is planning self-generation, REC purchase, third-party PPA contract, and green premium as strategies to fulfill RE100, but adapting to the diversification of the Korean power market and renewable energy trading market, we are planning to achieve RE100 by 2040 through feasible renewable energy transition strategies.

C8.2l

(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

C8.2m

(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Republic of Korea	Limited supply of renewable electricity in the market	In the case of Korea, there is a lack of renewable energy equipment which limits the means of achieving RE100. Additionally, the size of the country is small which limits the expansion of renewable energy, causing a lack of supply over demand following the increase of demand for renewable energy, and this imbalance of supply and demand is expected to continue for the time being. Lotte Chilsung Beverage is currently carrying out solar self-generation, REC purchase, third-party PPA agreements, and purchasing green premium as the 4 key strategies for achieving RE100, where we plan to continue to monitor the change in power supply in the renewable energy market to secure renewable energy supply.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Scope1,2 GHG Verification Statement(KMR).pdf

Page/ section reference

This is the result of third-party verification of Lotte chilsung's total GHG(Scope1, 2) emissions in Korea.

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Scope1,2 GHG Verification Statement(KMR).pdf

Page/ section reference

This is the result of third-party verification of Lotte chilsung's total GHG(Scope1,2) emissions in Korea.

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Scope 3: Use of sold products

Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Scope3 GHG Verification Statement(KMR).pdf

Page/section reference

This is the result of third-party verification of Lotte chilsung's Scope3 emissions in Korea.

Relevant standard

IS)14064-1

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Emissions reduction activities	Environmental performance certificate ISO14025	To enhance the environmental performance of products and services, Lotte Chilsung Beverage is participating in and expanding the environmental performance declaration (EPD) that quantifies the environmental impact in all processes of production, distribution, usage, and disposal. Environmental performance certification was given to 2 key products of Lotte Chilsung Beverage (Chilsung Cider) in 2021, followed by 5 coffee drinks in May 2022, 3 tea drinks in November, and another 3 types in 2023, totaling 13 certified products. The environmental performance certification is valid up to 3 years from the date of certification, and we are planning to continue maintaining and expanding environmental performance certificated and low-carbon products to contribute in reducing GHG emissions. The environmental performance certification is related to C4.5a of the CDP report. 환경성적표지(23.06월 기준 13종).pdf
C8. Energy	Progress against emissions reduction target	AA1000AS v3	Lotte Chilsung Beverage received third-party verification for our energy and renewable energy performance reported in C8.2. Detailed energy data was calculated based on confirmed GHG receipts verified by a third-party. Data on energy and renewable energy usage can be found under Energy Usage in p95 of the Sustainability Report.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Korea ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Korea ETS

% of Scope 1 emissions covered by the ETS

100

% of Scope 2 emissions covered by the ETS

100

Period start date

January 1 2022

Period end date

December 31 2022

Allowances allocated

158533

Allowances purchased

3500

Verified Scope 1 emissions in metric tons CO2e

53530

Verified Scope 2 emissions in metric tons CO2e

105844

Details of ownership

Facilities we own and operate

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

[Strategies for responding to participating systems]

With the goal of 'striving to limit the increase of global temperatures at 1.5°C compared to pre-industrialization' set by the Paris Agreement, Lotte Chilsung Beverage is aiming to achieve Net-Zero following the international society. Therefore, Lotte Chilsung Beverage is continuously carrying out up to mid to long-term strategies through establishing emissions goals, operating a dedicated carbon management department, and emissions reduction activities.

[Application of strategy, outcome of actions, and implementation period]

Lotte Chilsung Beverage is implementing global initiative-based GHG reduction goals. In 2021, we declared carbon neutrality by 2040, setting a path for achieving carbon neutrality and establishing a roadmap according to the SBTi 1.5°C scenario. Lotte Chilsung Beverage will reduce emissions by 51% compared to BAU by 2030, achieving carbon neutrality by 2040. Also, through operating a EHS team, workplace environmental management and risks to the environment are identified in advance in effort to manage emissions reduction activities.

To achieve the goal of carbon neutrality, Lotte Chilsung Beverage is carrying out various GHG reduction activities such as energy diagnostics, efficiency projects, expanding electric vehicles, and transitioning into renewable energy. Through energy efficiency projects from 2020, Lotte Chilsung Beverage is expanding the installation of optimal load control (OPC-M) devices which reduce energy usage in the workplace. Unlike existing motor speed control units through frequency adjustment like inverters, the motor power load optimal control unit (OPC-M) is a device that reduces energy by adjusting the effective power of axial power that changes in real time. The operation status of facility motors that can be applied to each workplace were identified for installation review since 2020. In 2022, the load optimal control unit (OPC-M) was installed in the Anseong factory, resulting in a reduction of 650tCO₂-eq in GHG emissions each year.

Related to the expansion of electric vehicles, we are gradually transitioning combustible engine vehicles to eco-friendly vehicles to reduce emissions, which we plan to continue following the electric vehicle supply through our internal transition plan. After the trial introduction of electric vehicles in select branches from August 2021, the vehicles that can be transitioned into electric vehicles were transitioned to operate a total of 212 electric vehicles by the end of 2022. Through this, we are reducing a total of 648tCO₂-eq in emissions every year.

Also, Lotte Chilsung Beverage is a member of RE100. In connection with achieving the RE100 goal which 100% transitions into renewable energy by 2040, we are actively carrying out activities to reduce GHG emissions such as expanding solar panel installation in workplaces and purchasing green premium. Lotte Chilsung Beverage installed solar panels in Chungju 2 factory and Anseong factory for self-generation. We plan to gradually carry out technological investment reviews for areas that can install solar panels, and systematically use other RE100 implementation means to address insufficiencies. Also, we are planning to actively introduce carbon emissions reduction technology such as CCUS and hydrogen technology in the mid to long-term.

Because Lotte Chilsung Beverage's GHG reduction goal is Net-Zero by 2040 compared to the national goal of 2050, so we expect to achieve the national ETS goal if we meet our independent goals.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect GHG emissions data at least annually from suppliers
Collect other climate related information at least annually from suppliers

% of suppliers by number

4.57

% total procurement spend (direct and indirect)

34.95

% of supplier-related Scope 3 emissions as reported in C6.5

4.57

Rationale for the coverage of your engagement

[Selection Criteria]

Among the 700 suppliers we need to produce our products, we selected large corporations and key partner companies with higher purchase volumes. From these 40 companies, we requested their GHG data to calculate the emission volume related to Scope 3 Category 1 procurement. 32 of these companies submitted their replies, which allowed us to measure the emission. The rate of proceeding with engagement activities with suppliers was 4.57% with 32 out of 700.

[Engagement Activities]

Lotte Chilsung Beverages has been conducting supply chain ESG evaluations with large-volume partners since 2022. With the emission volume, energy saving, safety and health, human rights, and ethics management as the evaluation items, we conducted online assessment and field inspections to conduct our supply chain ESG evaluations. In 2023, the suppliers will be monitored and re-evaluated for their implementation of the improvement requirements based on the evaluation results of 2022. Also, we plan to manage the suppliers so that they can pay more attention to managing GHG and energy. In addition, we promised with the suppliers so that we provided customized feedbacks to suppliers and established a cooperation program to prepare for the possibilities of risks, in addition to preemptive responses and we can increase the level of ESG management activities.

Impact of engagement, including measures of success

[Engagement Effect]

Lotte Chilsung Beverages has conducted supply chain ESG evaluations with our key procurement suppliers. And each of these suppliers was rated for the areas of environment, social responsibility, and governance. Each of these suppliers was provided with a report, as well. The key suppliers of our company were mainly medium-sized companies or small companies. The suppliers may not find it easy to diagnose ESG management status. However, with the ESG reports that we provided, they can assess themselves to find out how good they are doing in these areas. Based on these, they would give efforts to make the improvements they need. Lotte Chilsung Beverages will, through the data collection and monitoring through the yearly ESG assessment, work with the suppliers with the suppliers to enhance the level of their ESG management.

[Greenhouse Gas Emission Rate]

The rate we have been reported about the greenhouse gas emission volume of our suppliers was 4.57%. Of the total procurement-related emission of Scope 3 Category 1, which was 1,434,778tonCO₂, the greenhouse gas emission from the applicable supplier was 65,661tonCO₂.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
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% of customers by number

5.97

% of customer - related Scope 3 emissions as reported in C6.5

97.5

Please explain the rationale for selecting this group of customers and scope of engagement

[Selection Criteria]

Lotte Chilsung Beverages is a manufacturer of beverages and liquor, and we selected all of the consumers for our products as the targets.

The ratio of the customers was calculated under the assumption of the consumption volume based on the sales volume of the no-label products and environmental performance indicators, which were environmentally-friendly products. The value was calculated as [2022 No-Label Product and Environment Performance Indicator Product Sales/Total Product Sales], and the rate of the said customers was 5.97%.

Lotte Chilsung Beverages is a beverages and liquor company, and many of our products are composed of plastic and PET bottles. Starting with the launching of Icis 8.0 ECO No-label product in January 2020, we have been expanding the list of no-label products to establish a sustainable resource-recycling economy and reduce the use of plastics. With this, we will expand the opportunities for the consumers to purchase more no-label and short-label products, while we conducted no-label and short-label products promotion campaigns.

Impact of engagement, including measures of success

[Engagement Effect]

Lotte Chilsung Beverages executed the RE:Green campaign as a part of the engagement activities for customers to establish a resource recycling economy by reducing the use of oil-originated plastic. Lotte Chilsung Beverages signed a cooperation agreement the District of Songpa for successful settlement of the clear PET bottle segregation program and proceeded with the awareness and participation encouragement events, etc. In October 2022, we participated in the 'Recycling Expo' hosted by the District of Songpa to run the Zero Waste Market Booth to introduce the no-label products of our company and explain how to segregate PET bottles properly. With this, we conducted our campaign activities to encourage citizens to participate in resource recycling activities voluntarily.

[Greenhouse Gas Emission Rate]

Through these activities, we could segregate the PET bottles during the disposal process of Scope 3 Category 12 products, so that we can reduce the GHG emission by increasing recycling rates. The greenhouse gas emission volume through plastic during the disposal process of our Scope 3 Category 12 products was 30,050tonCO₂, while the total emission from the said category was 30,820tonCO₂. Therefore, the Scope 3 GHG emission rate related to the said engagement activity was 97.5%.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Since 2021, Lotte Chilsung Beverages has been conducting RE:Green campaigns to reduce the amount of plastic made from oil and recycle plastic waste as we endeavor to build a sustainable resource recycling economy.

Lotte Chilsung Beverages is contributing to the development of the recycling economy in cooperation with other affiliate companies of Lotte Group as a part of the RE:Green campaign. Lotte Chilsung Beverages has installed waste PET bottle collecting bins in 11 customer businesses and made environmentally-friendly uniforms by upcycling the PET bottles we collected ourselves. With the installation of the recollection bins in 2022, we collected 18.2 tons of PET bottles ourselves. Also, for securing the recycling Value Chain and the advancement of the systems, we participated in the Zero Seoul Corporate Practice Group. Lotte Chilsung Beverages recollects PET bottles, the contractors of Lotte Chemical gathers them up and process them into flakes to recycle them as resources. Using this material, Lotte Chemical produces upcycling products through the rPET studies and cooperation with external partners. As such, Lotte Chilsung Beverages is implementing engagement programs with suppliers of different industries and local governments.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

No

C-AC12.2c/C-FB12.2c/C-PF12.2c

(C-AC12.2c/C-FB12.2c/C-PF12.2c) Why do you not encourage your suppliers to undertake any agricultural/forest management practices with climate change mitigation and/or adaptation benefits?

	Primary reason	Please explain
Row 1	Not an immediate business priority	The beverages we manufacturer are basically made from agricultural products, so we prefer the produce grown with low-carbon agricultural methods. However, this not a priority, since the amount of GHG emission is rather smaller compared to the emissions during the production of our products or the recycling issues of the plastics. However, as we plan to expand the carbon footprint of our products continuously, we will secure the information on the GHG emissions across the value chain in the long term.

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

A business agreement for the separation of PET bottles with Songpa-gu Office
 12.3 1) A business agreement for the separation of PET bottles with Songpa-gu Office.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

Lotte Chilsung Beverages has entered into a cooperation agreement for the reduction of GHG, especially plastic and engaged in specific activities for these goals. After we signed our cooperation agreement with the District of Songpa, we installed recycling bins in the district and engaged in cooperative activities program with the local government. Also, we are signing cooperative agreements with other interested parties to engage in the related activities to contribute to the segregation of plastic by all Koreans. In 2022, we worked with EBS, a public TV network, to produce an environmental education TV show for children and launched a campaign to promote recycling of PET bottles. We visited elementary schools to provide field education along with other related activities.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Clear PET Bottles Recycling Program for Apartments

Category of policy, law, or regulation that may impact the climate

Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate

Circular economy

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Republic of Korea

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Lotte Chilsung Beverages has entered into a cooperation agreement for the reduction of GHG, especially plastic and engaged in specific activities for these goals. We signed a cooperative agreement for recycling clear PET bottles and proceeded with the activities for promoting PET segregation and encouragement events, as well as the educational activities for students to help spreading the PET segregation program for detached houses in South Korea. These events are not meant to one shot. In 2022, we participated in the Recycling Expo held by the District of Songpa to run the Zero Waste Market booth to educate the citizens on how to segregate PET bottles properly.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

Plastic has been replacing other materials in medicine, transportation, packaging, and many other fields. This boosted its production, so that in 2020, a total of 337 million tons of plastic was produced, which was more than 240 times than 70 years ago. Plastic does not decompose easily and maintains its original states. Also, the packaging materials, which account for the majority of plastic use, are thrown away after a single use in most cases. Therefore, the life span of these products are less than a year. As the climate crisis and environmental pollution due to plastic is aggravating, the movements to control the plastic issue in the world to keep the world's temperature within 1.5 degrees is spreading widely. One way to reduce plastic is to contribute to the recycling of plastic. Therefore, South Korea introduced a mandatory 'Clear PET Bottles Segregation Program' to facilitate the recycling of plastic. The segregation program was introduced to increase the recycling rate of the resources that would be disposed of otherwise and reduce the amount of resource wastes. For this, active participation by the citizens is essential.

For this, Lotte Chilsung Beverages has been endeavoring in many different ways so that the segregation program would take roots successfully since the introduction of the Clear PET Bottles Segregation Program for Apartments. We signed a cooperative agreement for PET Bottles Segregation with the District of Songpa and ran resident encouragement events, student education, and the Zero Waste Market Booth, to create a foundation to help the citizens participate in and invigorate the program. Also, we worked with the EBS, a public TV network, to develop a PET bottle character named "Ocean Trash Ida" and participate in the production of an environmental education program. We also visited elementary schools and kindergartens to provide education on the importance of PET segregation. Lotte Chilsung Beverages plans to expand these programs so that more people can participate in the segregation of PET bottles and contribute to the recycling of resources.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

[Emissions Trading Schemes]

According to Article 25 of the "Framework Act for Carbon Neutrality and Green Growth for Responding to Climate Crisis," the purpose of the Emissions Trading Schemes of South Korea is to utilize the market to trade the emission rights for Kim GHG to contribute to the fulfillment of the GHG reduction goals (NDC) of the country. The eligible companies are assigned with GHG emission quota, and the plan periods divided into five-year segments are established to monitor performance. To be eligible, a company's annual average emission of greenhouse gases must be at least 125,000 tCO₂-eq, or the company must have at least one or more business facilities where the emission volume is 25,000 tCO₂-eq or higher.

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Emissions – other GHGs

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Republic of Korea

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

By the ETS, which was introduced for the first time in 2015, the whole timeline is divided into the 1st (2015-2017), 2nd (2018-2020), and 3rd (2021-2025) plan periods. And, for each of these segments, Lotte Chilsung Beverages is assigned with emission rights.

Due to the implementation of carbon neutrality, the global emission rights purchase cost increased. Therefore, Lotte Chilsung Beverages established a system for implementing carbon neutrality. By setting the GHG reduction goal, we established a GHG reduction plan to upgrade our 2040 Net Zero Roadmap. Also, we joined the SBTi to develop effective GHG reduction plans. In addition, we plan to reduce our GHG emissions in a stepwise manner by increasing the number of EVs we adopt based on the goals set for the switch to electric vehicles.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

Over the world, excessive GHG emissions aggravated the damages caused by climate change. And, there are regulations being set up and policies being introduced to reduce the GHG.

The South Korean government introduced its 'Low Carbon Green Growth Act' in 2010, followed by a subordinate law called the "Act on the Allocation of GHG Emission Rights and Trade thereof," and introduced the emission rights trade scheme since 2015. A company that is assigned with the quota are issued with a certain amount of emission rights for each of the three plan periods.

The allocation of emission rights is showing a trend of decreasing in every plan period. And each company is required to make efforts to reduce GHG. However, the government is also joining these efforts with a variety of external programs. In 2022, the Ministry of Environment held a information briefing to promote its GHG reduction policies and external programs in the transport sector. During the event, they introduced the GHG reduction methodology through the expansion of EV fleets, and, with the switch by the companies to EVs to proceed with the reduction of fossil fuels. Lotte Chilsung Beverages also participated in the event to review the related information. To meet the 1.5 degrees carbon neutrality goal, we established a plan to replace 10% of our fleets with EVs to reduce the carbon emissions from transportation.

As such, we plan to continue the activities and systems that could respond to the ever-strengthening ETS in a stepwise and continuous manner by developing a system to implement carbon neutrality and increase the introduction of EVs.

C12.4

(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

★Lotte Chilsung 2022 Sustainability Report.pdf

Page/Section reference

[Governance] SR p.26(Roles and Responsibilities of the CEO), p.33(Governance to respond to climate change)

[Strategy] p.28~32(Climate change response strategies and activities)

[Risks&Opportunities] p.34~35(scenario analysis)

[Emissions figures] p.31(Scope3), p.95(Scope1, 2)

[Target] p.28~29

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Comment

[Governance] Lotte Chilsung Beverages has strengthened its decision making system related to climate changes and the ESG Committee; identified the risks and opportunities related to climate changes; and upgraded its monitoring and supervising systems.

[Strategies] Based on the climate change scenarios suggested by the IPCC and IEA, Lotte Chilsung Beverages has established our own response systems and analyzed the risks and opportunities related to climate changes.

[Risks and Opportunities] We established a system to identify, assess, respond to, and monitor climate change risks and integrated the risk management system for climate changes and the corporate risk management system.

[Emissions] By joining the SBTi and establishing the goals in 2023, we are conducting activities for reduction to meet the Net Zero goals of Scope 1 and 2 by 2040.

[GHG Reduction Goals] We plan to join the SBTi and set up the related goals in 2023 and strengthen the disclosure and management of the related quantitative indicators for the risks of climate changes and responses, while maximizing the efficiency of performance management through the establishment of a variety of environmental systems.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization’s role within each framework, initiative and/or commitment
Row 1	RE100 Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact	<p>[TCFD] Since the declaration of support for the TCFD in 2021, Lotte Chilsung Beverages has established a management system to comply with the recommendations of the TCFD, while reporting the current process with the responses to the TCFD.</p> <p>[UN Global Compact] We joined in 2021 and declared our intent to comply with the human rights requirements. We published the COP Implementation Report in May 2022. As such, Lotte Chilsung Beverages has been complying with the UNGC Principles No. 7 through 9.</p> <p>[RE100] To actively join the efforts to respond to climate changes, Lotte Chilsung Beverages declared Global RE100 for the first time in the food industry and set up an implementation plan to achieve 100% switch to renewable electricity by 2040. To implement RE100, Lotte Chilsung Beverages is considering the domestic power consumption to renewable energy. By conducting a suitability review, we are making efforts to switch to self-generation of power. And we are using the RE100 implementation means such as Green Premium, 3rd Party PPA, REC purchase, etc., to establish the plans for achieving RE100.</p>

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	<p>Lotte Chilsung Beverages has identified the significant managerial risks affecting climate change management to reflect them to the corporate strategies of the company and charged our BOD and CEO with the related responsibilities.</p> <p>The Board of Directors of Lotte Chilsung Beverages has the final decision on the issues related to climate change, and the ESG Committee under the BOD monitors the climate-change-related activities, approves key objectives, and participates in the establishment of the strategic directions and goal-setting for climate changes.</p> <p>Of these, since the requirements for social responsibilities on the environmental issues are increasing and we understand the active responsibilities of businesses on biodiversity, we are briefing the top management of the company and the BOD of the biodiversity activities and execution of donations to respond to climate changes.</p> <p>Lotte Chilsung Beverages is working with the EBS to produce a TV show titled "Green Vest Rescue" featuring endangered animal species to cover the issues of the environmental impact plastic wastes and the importance of recycling. Also, with the off-line education activities, we covered how to recycle property and the importance of protecting the environment.</p> <p>Through the 'Remember Me Campaign' for protecting biodiversity, we launched 'Icis 8.0 x Seongshilhwaryang Edition' to donate the profits from the sales to the Maritime Biodiversity Project of the Natural Environment National Trust to contribute to the efforts to protect marine species.</p> <p>In addition, Lotte Chilsung Beverages has developed forests in Gangwon and Incheon areas over four occasions with its green land development projects since 2018. The total area of the forest we developed is 44,600m². We conducted our green land development project to restore the ecosystem in areas affected by wild fires or the landfill sites near the capital. In the future, we plan to expand our green land development projects to preserve the ecosystem and engage in our biodiversity activities.</p> <p>The participation fees from these events were donated to the East Asian-Australasian Flyway Partnership (EAAFP). The donated funds will be used to protect the nests of the migrating birds along the migrating routes across East Asia – Pacific regions to protect migrating birds and their wetland habitats. In the future, we plan to continue our activities to protect migrating birds and their habitats in cooperation with the related organizations.</p>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have endorsed initiatives only	<Not Applicable>	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Education & awareness

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Please select

C15.7

(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	Lotte Chilsung Beverages SR 2022 : p.41~42 Biodiversity Lotte Chilsung Beverages SR 2022(p.41~42).pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization’s response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms