

# Welcome to your CDP Climate Change Questionnaire 2023

### C0. Introduction

#### C<sub>0.1</sub>

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

LG Display Co., Ltd., the world's leading and most innovative OLED/LCD company, began producing displays for diverse applications such as TV, IT, Mobile, Commercial, and Automotive. The sales revenue of 2022 is KRW 26,151,781 million. Major technologies are OLED, IPS, M+, and In-touch. Globally, 8 production corporations, 8 sales corporations and 9 sales branches are on operation. In the absolute quantity basis, LG Display established the Net Zero Goal of reducing carbon by 53% until 2030 compared to the base year of 2018, by 67% until 2040, and by 100% until 2050, and efforts are continued to achieve the goal. In order to implement eco-friendly green business in terms of climate change, LG Display is actively responding to emission trading scheme and government policies as a short-term strategy. By replacing the main source of greenhouse gas, SF6 gas, with NF3 and investing in plasma scrubber, a greenhouse gas reduction facility, we are planning to continue to develop lowcarbon clean production technologies for process greenhouse gas emission Zero in the midto long-term.

- 1985 Established Goldstar Software Co., Ltd. the former LGD
- 1993 Launched LCD business division within Goldstar
- 1999 Changed corporate name to LG LCD Co., Ltd
- 2008 Changed corporate name to LG Display Co., Ltd
- 2016 Constituted standard 3 business units (TV, IT, Mobile)
- 2019 Completed OLED panel plant in Guangzhou, China

#### C<sub>0.2</sub>

(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 No

#### C<sub>0.3</sub>

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

China Republic of Korea Viet Nam

#### C<sub>0.4</sub>

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

**KRW** 

### C<sub>0.5</sub>

(C0.5) Select the option that describes the reporting boundary for which climaterelated 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<sub>0.8</sub>

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

	Provide your unique identifier
Yes, an ISIN code	KR7034220004

### 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	Responsibilities for climate-related issues
individual or	



committee	
Chief Executive Officer (CEO)	In 2021, LG Display newly established the ESG Committee, the highest decision-making organization related to the climate change, and the ESG Committee is responsible for reviewing and supervising the operations and directions on the overall ESG including climate change.
	1. Level of Roles & Responsibilities: The CEO is one of the member in the ESG Committee, and first, approval is given on the basic policies and strategies established for ESG management, and also on the mid-long term ESG goal, and secondly, report is received on the ESG management activity plan and implementation performance, and on the occurrence and response to significant risks related to ESG to review the directions for decision-making.
	2. Position in Governance: The management of LG Display reviews the risks and opportunities related to the climate change continuously. In this process, the CEO supervises the mid-long term GHG reduction goal and achievement method according to the Net Zero, climate change issues, investment in GHG reduction and sales of CER (Carbon Emission Right), execution of investment in transition to renewable energy, etc., and overall matters on financing. Reviewed climate change related main issues requiring decision are reported to the ESG Committee, and approved matters are reflected in the business plan and policies for implementation.
	3. Climate Change Related Decisions: In October, 2021, the 1st ESG Committee meeting was convened, and external ESG management performances (Purpose of renewable energy through Green Premium, and issue of Green Bonds, etc.). In addition, status of promoting the 9 Key Areas of ESG (including climate change) was reported. Also, Declaration of 2050 Net Zero was deliberated and approved through the ESG Committee meeting held in April, 2023.

### 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	Please explain
Scheduled – some meetings	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Overseeing and guiding employee	In 2021, LG Display newly established the ESG Committee, the highest decision-making organization related to the climate change, and the ESG Committee is responsible for reviewing and supervising the operations and directions on the overall ESG including climate change.  Agenda related to climate change include mostly



incentives 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 Reviewing and guiding the risk management process	strategies on Net Zero, review on risk management, main investments and sales, and performance on the GHG emission.  In October, 2021, the 1st ESG Committee meeting was convened, and external ESG management performances (Purpose of renewable energy through Green Premium, and issue of Green Bonds, etc.). In addition, status of promoting the 9 Key Areas of ESG (including climate change) was reported. Additionally, LGD climate change reduction strategy, and reduction performance and emissions in the relevant year are reported through the management meeting (Contents reflected in the quarterly report).  In the ESG Committee meeting held in April, 2023, Declaration of 2050 Net Zero was deliberated and approved.
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### 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
Row 1	Yes	One of the ESG Committee member was appointed as the operating committee members of Korea Commission for Corporate Partnership and Supplier ESG Support Project Operating Committee, and as the Co-Chairman of the ESG Management Committee, and there are careers having various experiences (GHG, Environment, etc.) on ESG. Climate change is a key task in ESG, and the relevant member can be judged to have expertise in climate change. Additionally, there is an ESG committee member majoring in the environmental laws, and currently holding the position as the Vice-Chairman of the Korean Environmental Law Association (ELA). Thus, it can be judged that the relevant member is secured with the expertise in climate change risks.

### 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 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

#### Coverage of responsibilities

#### 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 CEO is one of the member in the ESG Committee, and first, approval is given on the basic policies and strategies for ESG management, and also on the mid-long term ESG goal, and secondly, report is received on the ESG management activity plan and implementation performance, and on the occurrence and response to significant risks related to ESG to review the directions for decision-making.

The management of LG Display reviews the risks and opportunities related to the climate change continuously. In this process, the CEO supervises the mid-long term GHG reduction goal and achievement method according to the Net Zero, climate change issues, investment in GHG reduction and disposal of CER (Carbon Emission Right), execution of investment in transition to renewable energy, etc., and overall matters on financing. Reviewed climate change related main issues requiring decision are reported to the ESG Committee, and approved matters are reflected in the business plan and policies for implementation.

#### 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	Yes	To select the compensation of the management, LG Display considers the mid-long term management plan and objectives to



1	evaluate the achievement results. Compensation of the Board of
	Directors (BOD) is provided according to the evaluation result within
	the range of amount approved in the Regular General Meeting of
	Shareholders.

#### 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 Sustainability Officer (CSO)

#### Type of incentive

Monetary reward

#### Incentive(s)

Bonus - % of salary

#### Performance indicator(s)

Progress towards a climate-related target Achievement of a climate-related target

#### Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

#### Further details of incentive(s)

To select the compensation of the management, LG Display considers the mid-long term management plan and objectives to evaluate the achievement results. Compensation of the Board of Directors (BOD) is provided according to the evaluation result within the range of amount approved in the Regular General Meeting of Shareholders.

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

To select the compensation of the management, LG Display considers the mid-long term management plan and objectives to evaluate the achievement results. Compensation of the Board of Directors (BOD) is provided according to the evaluation result within the range of amount approved in the Regular General Meeting of Shareholders.

This management plan includes various areas, and among them, the area related to the environment includes the contents for enhancing the ESG management such as promoting Net Zero and RE100, etc.



### 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	
Medium-term	3	12	
Long-term	12	28	

#### C2.1b

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

1. Definition on the significant financial impact to the business when identifying the risks of climate change

Significant finance impact refers to the financial impact equivalent or higher than the certain level having impact to the businesses of the company (product manufacture or sales) due to the risks of climate change. Climate change must comply with various regulations (Emission Trading Scheme and EPEAT Certification, etc.), and in the case of failing to comply with the regulations, it can result in decrease in sales amount. The estimated amount is assumed to be maximum of KRW 25.367,228 million as of 2022 (On noncompliance of EPEPAT overseas standard\_2022 Overseas Sales Portion (97%)\*2022 Sales Amount (KRW 26,151,781 million)). 90% or more of LGD sales are from overseas export, and as significant impact can be received on the sales amount due to noncompliance of the overseas standards, financial impact due to the climate change is relevant to the company-wide level. Therefore, climate change is included in the risk for consistent management. In addition, as there are risks existing in this sales amount, review and guide on the strategy regarding the climate change issue are reported to the Board of Directors (BOD) for decision-making. As an example of effort for complying with the overseas standard (EPEAT) is a strategy in 2019 for climate change, and decision was made on introducing the reduction equipment by investing approximately KRW 9.3 billion for reducing the F-Gas used in the Dry Etch Equipment in LG Display Paju Plant. Also, investments including KRW 12.58 billion in 2020 / KRW 5.28 billion in 2021 / KRW 6.6 billion in 2022 were also determined for complying with the Emission Trading Scheme (ETS).

#### 2. Definition of Risks/Opportunities

Climate change risks having significant impact to the business, operation, sales or expenses are performed with risk assessment, and priority is selected for assessment. This is also the



case for opportunities. Definitions of risks and opportunities were quoted from the Materiality Assessment Process. Significant impact refers to the financial impact equivalent or higher than the fixed level having impact to the businesses of the company (product manufacture or sales) due to the risks of climate change.

[Measures used to define the significant impact include Stakeholders Impact and Business Relevance. Stakeholders Impact is a quantitative indicator on the level of human damage, legal violations and degree of impact to the external image, and business impact defines the level of financial losses. The relevant indicators are managed by the management committee. By considering the possibility of occurring with corporate risks and through impact assessment, LGD is setting the risk items as the quantification indicators, and priorities are selected through materiality assessment. Occurrence possibility is evaluated through assessment on the possibility frequency of the risk, and impact is evaluated in terms of impact level to the strategy in response to climate change on the 4 items including (1) Financial Loss, (2) Casualties, (3) Corporate Image and (4) Legal Sanctions/Disputes, etc.

Meanwhile, opportunities of the climate change are determined of the priority mostly through the assessment on the impact to the company. Impact to the opportunity is judged and evaluated on the opportunity factors due to the climate change on the 3 items including (1) Financial Benefits, (3) Increase in Corporate Image and (3) Minimization of Legal Sanctions/Disputes.

#### C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climaterelated 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**

1. Integration into company-wide Risk Identification, Assessment and Management Process

LG Display is detecting the internal & external risk factors, and taking quick response for preemptive risk management. Risks related to the business environment such as uncertainties, opportunity losses, casualties and business suspension, etc. are analyzed



throughout the company, and key risks are selected according to the occurrence possibility and impact level to establish the prevention and management system simultaneously.

Risk management process is performed in 4 stages including identification of risk factors, response, recovery and prevention.

LG Display established the risk management system for each area on the non-financial management areas such as Hr/labor, intellectual property rights, environment/safety and product quality, etc. having impact to the management of the company. Since 2009, LG Display established the Compliance Operation System, and relevant departments and executives/personnel are participated for monitoring of major risks. The Compliance Team identifies and evaluates the climate change related risks through the Risk Check List & Self-Assessment Sheet once a year, and risks and opportunities on climate change are evaluated and analyzed annually in all business sites during the analysis of environmental organizations in the ISO 14001 Certification maintenance stage. Those subject to risk review are reviewed at least 6 years or more, and identified risks are evaluated in preparation for risk management.

Major risks related to the climate risk include Transition risk and Physical risk. Transition risk includes the risks on the legal regulation, technology, market and reputation, and as the financial impact to the company due to the negative impact of the climate change is very high, monitoring is performed continuously. Physical risk exists with financial risk of investment in the equipment obsolescence and repair in the business site due to increase in frequency of natural disasters from climate change, and therefore, impact is given on the production and sales of the company.

### 2. Cases of applying risks & opportunities in the process Transition Risk:

Situation: LGD was applied with Korean the Emission Trading Scheme (ETS) from 2015, and when the emission exceeds the quota granted by the government, LGD must purchase the CER from the CER market equivalent to the exceeded quantity. When the CER cannot be purchased, penalty that is 3 times the market purchase price must be paid.

Task: To reduce the process gas used in the processes, LGD must invest in reduction equipment with 90% or higher efficiency in removing the process gas, and infrastructure must be constructed for normal operation.

Action: In 2021, KRW 5.28 billion was invested to install the reduction equipment on the plasma scrubber in Paju Plant, and the relevant equipment is currently in normal operation.

Result: The reduction amount from investment of reduction equipment is 1.7 million tons, and GHG mission does not exceed the quota granted by the government. Therefore, purchase of the CER is not required.

#### Physical Risk:

Situation: Due to the increase in days of heatwave and average temperature from climate change, The power usage of equipment such as the cooling utilized in product manufacture is increased, and electricity cost is also increased accordingly.

Task: LGD must reduce the energy use and increase the energy efficiency of the equipment.

Action: Through the energy-saving activities such as improving the efficiency of the



chiller, etc., the plan is to reduce the GHG emission by 210,000 tons in 2022, and optimize the efficiency of the production and utility equipment continuously. Result: Electricity cost reduces according to the decrease in the power usage in the plant

### C2.2a

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

assessmen		Please explain
Current regulation	Relevant, always included	For the reduction activities, LG Display is investing in the 3rd party verification cost for complying with the legal obligation of reporting the annual emission according to the ETS (Emission Trading Scheme), and also investing in replacing the process gas, and installing the reduction equipment to comply with the emission compared to the government quota. In addition, as advanced countries such as EU, etc. are recently reinforcing the requirements such as the Nordic Swan Eco Label, the eco-friendly mark certification system on the electronic products, and EPEAT (Electronic Product Environmental Assessment Tool) on electronic products in the US, investment in installation/operation of the GHG reduction equipment is inevitable. When it is difficult to satisfy the meet criteria, the worst case of not performing business with LGD must also be considered. Therefore, this transition risk is included in the risk at all times for assessment.
Emerging regulation	Relevant, always included	According to the Paris Agreement, the Korean Government is mostly utilizing the ETS (Emission Trading Scheme) as the main method of GHG reduction that must be achieved for 2050 Net Zero. LG Display is participating in the ETS, and as the strategy for reducing the emission in long-term until 2050, investment in installing the reduction equipment for decomposing the GHG itself is being reviewed actively along with the investment for replacing the process gas. (Installation complete in some plants)  Also, transition to renewable energy for achieving the Net Zero (Direct purchase of renewable energy or indirect purchase of REC) is currently in progress, and expenses will be increased gradually according to the increase in purchase amount of renewable energy.  Accordingly, LG Display is constantly monitoring the policies related to renewable energy that are being announced by the government (Participation in the pilot REC project and Green Premium Bidding, etc.). As the method for reducing the indirect emission (CO2 emission from power generation), the government regulation on renewable energy is occurred with financial impact, and therefore, risk assessment is included at all times for evaluation, and to establish the measures.



Technology	Relevant, always included	As the customers' demands on eco-friendly products and low-carbon products are increasing, products failing to satisfy these demands are reduced in demand, and result in decrease in sales. Companies must focus on developing the relevant products to satisfy the customers' needs. As there is also impact on LG Display, products in accordance with this trend are being developed to proceed with R&D investment for securing the dominant position in the market. It is estimated that LG Display will increase the R&D investment cost for product development, and the portion of R&D investment cost compared to the annual sales amount from 2014 has been always 5% or more. This R&D investment cost is expected to increase gradually in the future. Technology is an important factor that determines the product, and always included in the risk assessment for management.
Legal	Relevant, always included	There are no pending litigations regarding the climate change, and as legal sanctions/disputes are factors for determining the materiality related to the climate change, LG Display is managing and responding to the risks preemptively.
Market	Relevant, always included	As the global market environment is growing rapidly, new market must be entered through Green Marketing. An environmental issue (climate change) is a factor that creates a new market area. As the technological gap between the companies is disappearing, companies cannot survive with price competition. The needs of the customers must be identified and responded through stronger product differentiation. Recently, customers and consumers are increasing in the awareness of not only purchasing eco-friendly products, but also generation of green energy. When the market trend of green consumption on emphasizing on the eco-friendliness of the product cannot be satisfied, the value of products will be gradually decreased in the market, and as this is connected directly to the sales, there are risks existing. Companies must focus on developing the relevant products to satisfy the customer needs. As there is also impact on LG Display, products in accordance to this trend are being developed to proceed with R&D investment for securing the dominant position in the market. It is estimated that LG Display will gradually increase in the R&D investment cost for product development, and the portion of R&D investment cost compared to the annual sales amount from 2014 has been always 5% or more. Therefore, LG Display includes the value of consumers/customers reflecting the market demand in the risk at all times for assessment. As the renewable energy is recently growing rapidly along with the appearance of the new climate system, and according to the market trend of expanding the portion of renewable energy from the plan on achieving the Net Zero by 2050, LG Display includes the items satisfying the market demand also in risk assessment, and measures are established along with the assessment to maintain the environmental-friendly image.



Reputation	Relevant, always included	Financial institutions and investors are utilizing the assessment results by the evaluation agencies related to sustainability and climate change such as CDP and DJSI as the factors for determining the investment. Accordingly, companies failing to respond appropriately to the social responsibilities of the company on climate change can result in negative impact to the corporate image such as decreasing in investment value, etc. The corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. As the overseas shareholder of LGD, Black Rock is also emphasizing on ESG recently, reinforcing and monitoring the response to climate change is being requested in the Stewardship Code Guideline. Investment can become more difficult when the response to climate change is not reinforced. LG Electronics is the largest shareholder of LG Display, and in the case of divestment, it can result in KRW 2,034,375,000,000 of financial impact (No. of shares owned by LG Electronics in 2022: 135,625,000 shares, in the standard of LG Display stock price: KRW 15,000) In addition, corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. Ilf the sales is reduced by 10% due to a decrease in demand, it can lead to sales figures decrease of approximately KRW 2,6 trillion (Standard of 2022). Therefore, risk management for preventing the enormous losses due to climate change is reflected essentially.
Acute physical	Relevant, sometimes included	Increase in the number of heatwave due to climate change results in increasing the power usage of other facilities such as the clean room and chiller, etc. Increase in energy consumption can cause additional load to the equipment, and continuous increase of electricity cost due to the increase in power usage is increasing the operating expenses to result in financial burden to LG Display. Electricity cost occupies approximately 68% of total administrative expenses in LG Display, and investment risk exists continuously on energy-saving. Therefore, this acute physical risk is included in the risk for management.
Chronic physical	Relevant, always included	Change in the average temperature due to climate change results in increasing the power usage of other facilities such as the clean room and chiller, etc. Increase in energy consumption can cause additional load to the equipment, and continuous increase of electricity cost due to the increase in power usage is increasing the operating expenses to result in financial burden to LG Display. Electricity cost occupies approximately 68% of total administrative expenses in LG Display, and investment risk exists continuously on energy-saving. Therefore, this chronic physical risk is included in the risk for management.



#### 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
Enhanced emissions-reporting obligations

#### Primary potential financial impact

Increased indirect (operating) costs

#### Company-specific description

Since the new climate change system of Paris Agreement was adopted in December 12, 2015, each country is obliged to set the intended nationally determined contributions independently, and to submit the reduction goal every 5 years, and the national GHG inventory, reducibility and achievement, etc. must be reported. Also, implementation performance is inspected every 5 years. Accordingly, the Korean Government submitted the voluntary GHG reduction goal to COP21 on reducing the GHG emission by 40% compared to the estimated emission in 2030 and introduced the ETS (Emission Trading Scheme) from 2015. The ETS regulation of LGD is relevant only in Korea. Domestic business sites (Paju/Gumi) of LGD are obliged to submit the GHG emission annually, and reduction performance is reported depending on the necessity. To comply with the GHG emission compared to the government quota, investment cost for the reduction, penalty from failing to respond to the regulation, and operating expenses such as CER purchase cost, etc. increase. Due to the business characteristics of LGD, fluorinated gas (F-Gas) is used in the process of manufacturing the panel. Reduction equipment (Plasma Scrubber) of removing 90% or more of the F-Gas was installed in the domestic Paju/Gumi Business Sites according to the requirements of the Korea ETS and customers. To be recognized of the annual GHG reduction from the Korean Government, expenses on measuring the efficiency of the reduction equipment is increasing, and expenses required for operating the reduction equipment (spare parts purchase cost and equipment operating expenses, etc.) are also increasing gradually. In addition, customers of LG Display are selling the products by acquiring eco-friendly



certifications such as Energy Star, EPEAT and Carbon Footprint as a marketing strategy for producing the set products such as TV and laptop PC, etc. using the LGD panels as the parts, and therefore, development cost for complying with the energy efficiency standard also increases.

Investment cost on GHG reduction equipment for satisfying the EPEAT standard is also increasing gradually.

#### **Time horizon**

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

25,443,673,748,862

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact figure**

As the Korean Government submitted the voluntary GHG reduction goal to COP21 on reducing the GHG by 40% compared to the estimated GHG emission until 2030, it is expected that LG Display must reduce the by 3.2 million tons CO2 by 2030 compared to 2018.

When assumed that investment in GHG reduction equipment and other reduction activities are not performed, KRW 65,400 million in expenses can occur as the cost for purchasing the CER.

- 3.2 million tons CO2 (Reduction amount required until 2030)\*KRW 23,889 (Unit price per ton when purchasing the CER)=KRW 76,446 million

When failing to respond to the overseas regulations on the energy efficiency of electronic products such as Energy Star and EPEAT, etc. on the customers using LGD panels as the parts to produce the set products such as TV and laptop PC, etc. for sales in EU and the US, this can have impact to the export and sales of LG Display, and result in decrease in sales. The sales amount of LG Display through export occupies 97% of the total sales. In the standard of sales amount in 2022 (KRW 26,151,781 million), it can occur with the worst risk of leading to decrease in sales up to KRW 25,367,228 million.

- 97%\*KRW 26,151,781 million = KRW 25,367,228 million

KRW 25,443,674 million = KRW 25,367,228 million + KRW 76,446 million



#### Cost of response to risk

7,090,000,000

#### Description of response and explanation of cost calculation

To respond to the ETS and international GHG regulations, LG Display is analyzing the domestic and foreign trends, and receiving verification from the relevant agency on the annual GHG emission and reduction performance for submission. (Verification Cost in 2022: KRW 300 million)

In 2022, LG Display invested KRW 6.6 billion on installing the process gas reduction equipment (plasma scrubber) to respond to ETS and to satisfy the overseas standards and used KRW 170 million in measurement expenses for measuring the efficiency of gas removal by the reduction equipment.

In addition, energy & environmental management system of ISO50001 and ISO14001 Certifications (Verification is received annually on the certification, and, maintenance cost for the certifications in 20222 was KRW 20 million) have been acquired for systematic environmental management. Moreover, contest on outstanding idea for energy-saving and reward system are operated to provide prizes to the employees, and efforts are continued to promote the energy-saving activities. The e-learning training program on GHG gas developed independently by LG Display is utilized to provide GHG energy-saving training on all domestic employees to enable the employees to be aware of the seriousness of climate change, and to enhance the consciousness on GHG reduction and energy-saving.

To reduce the power usage that occupies 60% or more in the GHG emission, LG Display established the department for company-wide energy-saving, and as a result of performing the energy-saving activities, 454GW of energy-saving was achieved in 2022.

#### Comment

- 1) GHG emission and reduction performance verification cost: KRW 300 million
- 2) Investment cost on process gas reduction technology: KRW 6.6 billion
- 3) ISO Certification maintenance cost: KRW 20 million
- 4) Reduction efficiency measurement cost: KRW 170 million

#### Identifier

Risk 2

#### Where in the value chain does the risk driver occur?

**Direct operations** 

#### Risk type & Primary climate-related risk driver

Technology

Transitioning to lower emissions technology

#### **Primary potential financial impact**

Other, please specify



#### R&D Cost for New & Alternative Technology Development

#### Company-specific description

As the customer demand on eco-friendly products and low-carbon products are increasing, products failing to satisfy these demands are reduced in demand, and result in decrease in sales. Companies must focus on developing the relevant products to satisfy the customer needs. As there is also impact on LG Display, R&D investment is expected for securing the dominant position in the market by developing products according to the trend. Recently, LGD customers are gradually increasing the request for eco-friendly products, and especially in the US, there is an increasing trend of customer requiring the satisfaction of EPEAT standard on reducing the greenhouse gases.

#### **Time horizon**

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

1,307,589,000,000

#### Potential financial impact figure – maximum (currency)

2,615,178,100,000

#### **Explanation of financial impact figure**

When the interests and requirements of the customers on eco-friendly products and low-carbon products are increasing, and demands for corresponding products are also increasing, products failing to satisfy these requirements are reduced in demand, and result in decrease in sales. It is estimated that R&D investment cost for identifying the customer needs and developing the products satisfying these needs will increase, and the portion of R&D investment cost compared to the annual sales amount from 2014 has been always 5% or more. This R&D investment cost is expected to increase gradually in the future. Actually, the R&D investment cost is increasing consistently from 2017, but 10% is not exceeded. (2017: 6.0%, 2018: 7.2%, 2019: 7.6%, 2020: 7.2%, 2021: 7.1%, 2022: 9.3%) Therefore, minimum value of the financial impact was set as 5% of the sales amount, and maximum value was calculated as 10%.

(2022 Standard:

Min.: KRW 1,307,589 million = 5%\*KRW 26,151,781 million Max.: KRW 2,615,178 million = 10%\*KRW 26,151,781 million)



#### Cost of response to risk

2,431,680,000,000

#### Description of response and explanation of cost calculation

LG Display is continuing the efforts on developing eco-friendly products to satisfy the customer requirements according to the trend, and to become an eco-friendly company. As the interests and requirements of the customers on eco-friendly products and low-carbon products are recently increasing, products not satisfying the corresponding needs are resulted in decrease in product demand. Therefore, LG Display is continuing the efforts on developing eco-friendly products to satisfy the customer requirements on eco-friendly products, and to become an eco-friendly company. Along with development of photo-alignment and N-type liquid crystal by utilizing UV and M+ technology with high resolution, low power consumption and outdoor visibility, low power consumption and high resolution were realized through the LCD product using IPS nano-color technology to take a step forward as an eco-friendly display, and product development is continued to enhance the reduction of raw materials and for eco-friendliness.

KRW 2.4 trillion has been invested in 2022 to perform 3 R&D projects, and the main performance of these projects include the development of OLED TV 97" product for the first time in the world.

In 2021, Green Technology Certification was acquired through the AIT (Advanced In-cell Touch) technology arranged with the touch sensing electrode and transmission line inside. This certification is a system evaluating and certifying the technology and value of minimizing the emission of GHG and pollutants by using the energy and resources efficiently. LG Display's AIT technology was certified as the Green Technology by reducing the GHG emission and use of are metals by decreasing in power consumption and use of parts during the processing stage.

In addition, eco-friendly certification program was developed with the TUV SUD certification agency in terms of outstanding resource circulation composed of satisfying the WEEE regulation, resource recycling and non-use of specific harmful substances, and this program was used to acquire the certification on the OLED TV and PO Mobile Model.

To receive the certifications on eco-friendly technology such as Green Technology Certification, TUV Certification and SGS Certification, etc., KRW 90 million was used in 2022 for the certification cost.

#### Comment

- 1) R&D Investment Cost: KRW 2.4 trillion (2,431,590,000,000)
- 2) Eco-friendly Technology Certification Cost: KRW 90 million

#### Identifier

Risk 3

Where in the value chain does the risk driver occur?



**Direct operations** 

#### Risk type & Primary climate-related risk driver

Market

Changing customer behavior

#### Primary potential financial impact

Decreased revenues due to reduced demand for products and services

#### Company-specific description

As the demands for eco-friendly products are gradually increasing among the customers and consumers, the awareness is increased on not only purchase of eco-friendly products, but also on generating green energy. When the market trend of green consumption on emphasizing on the eco-friendliness of the product cannot be satisfied, the market dominance is weakened to fall behind in the market changes, and as this is connected directly to the sales, there are risks existing.

Also, among the customers using LGD products, there are recently more customers requesting the transition to 100% renewable energy. Introduction of renewable energy includes direct purchase (PPA\_power purchase agreement) and REC (Renewable Energy Certificate) purchase, but when the renewable energy is not introduced, it can lead to non-compliance of requirements on the final customers, and not being able to satisfy the consumer trend. This is also be considered to exist with risk as it is directly related to the sales.

#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

2,807,589,000,000

#### Potential financial impact figure – maximum (currency)

4,115,178,000,000

#### **Explanation of financial impact figure**

When the interests and requirements of the customers on eco-friendly products and low-carbon products are increasing, and demands for corresponding products are also increasing, products failing to satisfy these requirements are reduced in demand, and result in decrease in sales. It is estimated that R&D investment cost for identifying the



customer needs and developing the products satisfying these needs will increase, and the portion of R&D investment cost compared to the annual sales amount from 2014 has been always 5% or more. This R&D investment cost is expected to increase gradually in the future. Actually, the R&D investment cost is increasing consistently from 2017, but 10% is not exceeded. (2017: 6.0%, 2018: 7.2%, 2019: 7.6%, 2020: 7.2%, 2021: 7.1%, 2022: 9.3%)

Therefore, minimum value of the financial impact was set as 5% of the sales amount, and maximum value was calculated as 10%.

#### (2022 Standard:

Min.: KRW 1,307,589 million = 5%\*KRW 26,151,781 million Max.: KRW 2,615,178 million = 10%\*KRW 26,151,781 million)

Also, use of renewable energy for achieving the Net Zero (Direct purchase of renewable energy or indirect purchase of REC) is currently being reviewed, and the amount required for purchasing the renewable energy for achieving the Net Zero is estimated to be approximately KRW 1.5 trillion or more. (The relevant amount is the simulated amount by LGD on the estimated amount required for purchasing the renewable energy until 2050)

Therefore, financial impact was calculated by reflecting both the renewable energy and R&D investment cost.

Min.: KRW 1,307,589 million + KRW 1,500,000 million = KRW 2,807,589 million Max.: KRW 2,615,178 million + KRW 1,500,000 million = KRW 4,115,178 million

#### Cost of response to risk

2,437,380,000,000

#### Description of response and explanation of cost calculation

Through market or customer survey, LG Display is continuing the efforts on developing eco-friendly products to satisfy the customer requirements according to the trend, and to become an eco-friendly company. In 2014, M+ technology with high resolution, low power consumption and outdoor visibility was developed for application to the product, and 'QPM Certificate', Intertek's certificate mark on quality and performance, was acquired. To satisfy the customer requirements on eco-friendly products and to become an eco-friendly company, LG Display realized low power consumption and high resolution on the LCD products through the M+ technology and IPS nano-color technology to take a step forward as an eco-friendly display, and product development is continued to enhance the reduction of raw materials and for eco-friendliness. Also, KRW 2.4 trillion was invested in 2022 to perform 3 R&D projects, and the main performance of these projects include the development of OLED TV 97" product for the first time in the world.

LG Display invested approximately KRW 5.79 billion in 2022 to purchase the renewable



energy for the purpose of ESG management, and transition to renewable energy will be gradually accelerated.

#### Comment

1) R&D Investment Cost: KRW 2.4 trillion(2,431,590,000,000)

2) Renewable Energy Purchase Cost: KRW 5.79 billion

#### Identifier

Risk 4

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Reputation

Other, please specify

Reduced sales due to social disadvantage

#### Primary potential financial impact

Other, please specify

Reduced sales due to overall social disadvantages

#### Company-specific description

Financial institutions and investors are utilizing the assessment results by the evaluation agencies related to sustainability and climate change such as CDP and DJSI as the factors for determining the investment. Accordingly, companies failing to respond appropriately to the social responsibilities of the company on climate change can result in negative impact to the corporate image such as decreasing in investment value, etc. The corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. As the major investor in LG Display, the National Pension Service owns 4.4% of the shares as of 2022, and as National Pension Service is an agency representing socially responsible investment, LG Display can lose the major investor when the activities related to climate change are insufficient. Therefore, LG Display is continuing the efforts on reputation management related to climate change and sustainability.

#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range



#### Potential financial impact figure (currency)

## Potential financial impact figure – minimum (currency) 236,180,745,000

#### Potential financial impact figure - maximum (currency)

2,615,178,100,000

#### **Explanation of financial impact figure**

There is an increasing requirement for transparent information disclosure on the response to climate change and governance according to the growth of socially responsible investment, and insufficiency in response can reduce the investment to cause negative impact to the market value of LGD. As the requirements of the stakeholders on the corporate activities on climate change and efforts for relieving the climate change are increasing, negative image can cause decrease in the investment value of LG Display, and risk of decreasing in product demand and sales can be occurred. As the National Pension Service owning 4.4% of LGD shares introduced the Stewardship Code, climate change risks are included for assessment, and when the response to the climate change is insufficient to result in the National Pension Service collecting the investment in LG Display, KRW 236,180,745,000 of financial impact can be caused (Shares owned by the National Pension Service: 15,745,383 shares, LG Display Stock Price in 2022: KRW 15,000, 15,745,383\*15,000=236,180,745,000) In addition, the corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. When the sales amount is reduced by 10% due to the decrease in demand, it can result in sales decrease of approximately KRW 2.6 trillion (10% of 2021 sales amount of KRW 26,151,781,000,000, 26,151,781,000,000\*10%=2,615,178,100,000).

#### Cost of response to risk

250,134,000,000

#### Description of response and explanation of cost calculation

LG Display publishes the annual sustainability report to share and receive opinion from the stakeholders on the climate change and other performances (2022 Sustainability Report Publication Cost: KRW 108 million, and ISO Certification (2022 ISO Certification Cost: KRW 20 million) were performed to receive verification on environment/energy management. Relevant certification is disclosed through the official LG Display website. Qualitative and quantitative performances of the company such as GHG emission and sales amount are disclosed through the business report, and external communications related to climate change such as CDP (2022 Certification Cost: KRW 6 million) and DJSI, etc. are responded actively. In addition, response methods related to the climate change issues are reviewed for promotion. Moreover, river purification activities are performed for preserving the ecosystem to fulfill the corporate social responsibility, and activities will be continued in the future.

Also, KRW 250 billion of ESG Bonds (Green Bonds) were issued in 2022 for investment



in the eco-friendly product of OLED production equipment and facilities, and the amount was used in the investment in OLED product manufacturing equipment and facilities as planned.

#### Comment

- 1) DJSI Publication Cost & 3rd Party Verification Cost: KRW 108 million/year
- 2) CDP Certification Cost:KRW 6 million
- 3) ISO Certification Acquisition Cost:KRW 20 million
- 4) ESG Bond (Green Bond) Issue Cost:KRW 250 billion

#### Identifier

Risk 5

#### Where in the value chain does the risk driver occur?

**Direct operations** 

#### Risk type & Primary climate-related risk driver

Acute physical Heat wave

#### Primary potential financial impact

Increased indirect (operating) costs

#### Company-specific description

As the increase in the number of heatwave can cause increase in power usage of equipment, electricity cost can increase continuously. This can increase the operating expenses to result in financial burden, and therefore, measures must be provided on energy-saving.

#### **Time horizon**

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

59,455,250,000

#### Potential financial impact figure – maximum (currency)

118,910,500,000



#### **Explanation of financial impact figure**

When the number of days with heatwave is increased due to climate change, the power usage of equipment such as chiller, etc. is increased, and the utility equipment in the office building are also increased with the power usage. This results in increase in electricity cost, and there is financial impact from increase in operating expenses.

When the minimum and maximum values on the ratio of increase or decrease in electricity cost according to the increase in number of days with heatwave in short, mid and long term are 5% and 10% each, the minimum value of additional financial impact according to the increase in number of days with heatwave is KRW 59,455.25 million, and maximum value is KRW 118,910.5 million.

(2022 Electricity Cost: KRW 1,189,105 million

Min.: KRW 1,189,105 million \* 5% = KRW 59,455.25 million Max.: KRW 1,189,105 million \* 10% = KRW 118,910.5 million)

#### Cost of response to risk

5,790,000,000

#### Description of response and explanation of cost calculation

To reduce the power usage that occupies 60% or more of the operating expenses, LG Display established the department for company-wide energy-saving, and as a result of performing the energy-saving activities, 454GW of energy-saving was achieved in 2022.

In addition, LG Display invested approximately KRW 5.79 billion in 2022 to reduce the use of fossil fuel, and to purchase the renewable energy for the purpose of ESG management, which will gradually accelerate the transition to renewable energy.

#### Comment

1) Renewable Energy Purchase Cost: KRW 5.79 billion

#### Identifier

Risk 6

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Chronic physical Temperature variability

#### Primary potential financial impact

Increased indirect (operating) costs

#### **Company-specific description**

As the increase in average temperature causes increase in power usage of equipment, electricity cost can increase continuously. This can increase the operating expenses to result in financial burden, and therefore, measures must be provided on energy-saving.



#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

59,455,250,000

#### Potential financial impact figure – maximum (currency)

118,910,500,000

#### **Explanation of financial impact figure**

When the average temperature is increased due to climate change, the power usage of equipment such as chiller, etc. is increased, and the utility equipment in the office building are also increased with the power usage. This results in increase in electricity cost, and there is financial impact from increase in operating expenses.

When the minimum and maximum values on the ratio of increase or decrease in electricity cost according to the increase in average temperature mid-long term are 5% and 10% each, the minimum value of additional financial impact according to the increase in average temperature is KRW 59,455.25 million, and maximum value is KRW 118,910.5 million.

(2022 Electricity Cost: KRW 1,189,105 million

Min.: KRW 1,189,105 million \* 5% = KRW 59,455.25 million Max.: KRW 1,189,105 million \* 10% = KRW 118,910.5 million)

#### Cost of response to risk

5,790,000,000

#### Description of response and explanation of cost calculation

To reduce the power usage that occupies 60% or more of the operating expenses, LG Display established the department for company-wide energy-saving, and as a result of performing the energy-saving activities, 454GW of energy-saving was achieved in 2022.

In addition, LG Display invested approximately KRW 5.79 billion in 2022 to reduce the use of fossil fuel, and to purchase the renewable energy for the purpose of ESG management, which will gradually accelerate the transition to renewable energy.

#### Comment

1) Renewable Energy Purchase Cost: KRW 5.79 billion



#### Identifier

Risk 7

#### Where in the value chain does the risk driver occur?

Upstream

#### Risk type & Primary climate-related risk driver

Reputation

Other, please specify

Reduced sales due to social disadvantage

#### Primary potential financial impact

Other, please specify

Reduced sales due to overall social disadvantages

#### Company-specific description

Impact of climate change is shown in the overall value chain from the raw materials inputted in product manufacture to quality of the parts and product demand. Regulations on GHG emission have significant impact in not only LG Display, but also in the business sites of the supply chain and on the use and disposal of products for sale. There can be cases of having to change the domestic supplier to overseas supplier due to non-compliance of the regulations on GHG emission by the domestic supplier, and this can result in increasing the material cost. Therefore, GHG emission and environmental issues of the suppliers are also managed separately and annually through carbon partnership. (Portion of emissions from the carbon partnership suppliers in the total LGD emission (including Scope 1, 2, 3) is relevant to 4.0% in 2022) In addition, expenses on procurement of raw materials and equipment through the supply chain in one 1 year is 70% (2022 standard) of the sales amount, and therefore, the impact is judged to be very significant.

#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

Medium

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

2,856,672,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)



#### **Explanation of financial impact figure**

Even when the domestic supplier must be changed to the overseas supplier due to the non-compliance of regulations on GHG emission by the LGD supplier, the equipment procurement cost on LGD can becomes a financial burden. In 2022, the procurement cost of raw materials and equipment by LG Display was KRW 18.3 trillion. Among them, the portion of suppliers with carbon partnership with LGD is 15.6%.

((38 Companies (No. of carbon partnership suppliers in 2022)/243(Total No. of suppliers performing business with LGD in 2022))

Therefore, the financial impact due to the suppliers reputation was calculated by the Total Procurement Cost in 2022 \* Portion of Carbon Partnership Suppliers in 2022.

18,312,000,000,000\*15.6%= 2,856,672,000,000

#### Cost of response to risk

100,003,600,000

#### Description of response and explanation of cost calculation

GHG inventory construction and supplier personnel training, and energy diagnosis consulting (Green SCM Consulting) are supported as free of charge to the suppliers of LG Display. suppliers that completed the consulting are issued with the certificate on carbon partnership with LGD. LG Display performs carbon partnership certification audit on the suppliers once a year. The audit items include establishment of GHG (energy usage) emission, calculation of emission amount, energy use status, cases of energysaving and performance of training and PR, etc., and when the relevant items are verified to be performed, the carbon partnership with LG Display is continued to perform the engagement activity on enabling the participation in GHG reduction (energy-saving). Also, suppliers with carbon partnership certification are provided with periodic follow-up support annually (GHG management system and technical support on energy). When evaluating the carbon partnership certification, overall data such as general information of the company, GHG emission, energy target and performance, reduction activity, legal compliance, interests of the management and risks are requested to the supplier. This information is used as the base data for evaluating the satisfaction level and for investment in shared growth, and environmental risks from the climate change are judged on the supply chain.

For the quantitative performance in 2022, environmental compliance of the suppliers were inspected to discover 8 issues, and the relevant issues were improved. About KRW 3.6 million in penalty must be paid when the improvements are not completed, but the penalty was exempt through preliminary measure.

#### Comment



- 1. Reduction amount on legal violations by the suppliers: KRW 3.6 million
- 2. New Win-Win Cooperation Fund: KRW 100 billion

#### 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**

Energy source

#### Primary climate-related opportunity driver

Use of lower-emission sources of energy

#### Primary potential financial impact

Reduced indirect (operating) costs

#### **Company-specific description**

As a method of reduction technology, after being applied with ETS (Emission Trading Scheme) in 2015, LGD invested in the equipment for replacing the SF6 process gas used in the dry etching process with the gas with relatively lower carbon emission, and plasma scrubber was installed to reduce the GHG emission. Through this, the SF6 usage in the overall plants in 2022 was reduced by 68% compared to 2015 (Reduction technology applied in 2015). In 2018~2022, LGD invested total of KRW 51 billion in introducing the reduction equipment, and as the emission was lower than the government quota, remaining CER was sold to create KRW 51.5 billion in profit so far. Currently, the plan is to invest and install the reduction equipment of plasma scrubber for recognizing the reduction in emission, and the remaining CER will be sold to create profit continuously. Sales of CER are performed by participating in the carbon market, and profit can be created from new market access.

#### Time horizon

Medium-term

#### Likelihood

Virtually certain



#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

9,157,615,176

#### Potential financial impact figure – maximum (currency)

27,472,845,528

#### **Explanation of financial impact figure**

LG Display was applied with the ETS (Emission Trading Scheme) from 2015 to perform the reduction of GHG emission. According to the standard on carry-over of CER, at least 1/3 of the CER surplus must be sold, and the remaining amount can be carried over. When assumed that the LGD surplus amount is 1.15 million tons in 2022, at least 380,000 tons to maximum of 1.15 million tons can be sold. In other words, at least KRW 9.2 billion to maximum of KRW 27.5 billion in profit can be created. (Unit price per ton: 23,889 Won/tCO2)

Min.: 380,000 tons CO2\*KRW 23,889 (Unit Price per Ton)= KRW 9,157,615,176 Max.: 1.15 million tons CO2\*KRW 23,889 (Unit Price per Ton)= KRW 27,472,845,528

#### Cost to realize opportunity

56,000,000,000

#### Strategy to realize opportunity and explanation of cost calculation

According to the ETS, LG Display is performing various GHG emission reduction activities to prevent the GHG emission from exceeding the granted quota, and to minimize the CER purchase cost. Also, KRW 5 billion was invested in the equipment improvement for replacing the SF6 gas in the process to unregulated GHG. Moreover, plasma scrubber was installed to reduce the F-gas. For the cost of installing the plasma scrubber, total of KRW 51 billion was invested from 2018 to 2022, in an effort to continuously reduce the emission of the process gas with high portion in LGD. LG Display will apply this technology in phases in the production process to reduce the GHG.

#### Comment

- 1) SF6 gas replacing clean production technology development and investment cost : KRW 5 billion
- 2) Process Gas Decomposition Equipment Investment Cost: KRW 51 billion

#### **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**

Identifying the customer needs, consumption pattern and trend is very important for companies manufacturing and supplying products to customers. As the awareness on climate change is increased, and the customer requirements are changed to the direction of preferring eco-friendly products, companies must develop corresponding products.

Providing the appropriate products according to this trend can become a good opportunity on securing the market dominance, and to increase the competitiveness. Recently, sales are increasing gradually through the recent eco-friendly product certifications.

Recent performances of main low-carbon product development are as shown below.

Year 2018: Realization of high-intensity (outdoor visibility), low power consumption and HDR product by applying the UHD RGBW(M+) Pixel structure

Year 2019: Development of world's first OLED(OLED is reduced in power consumption by 20% compared to the LCD product) 8K product

Year 2020: First product development complete in the Guangzhou OLED panel factory (77" UHD, 48" UHD) (UHD is a model applied with the M+ technology reducing the power consumption by 35% compared to LCD)

Year 2021: Green Technology Certification was acquired through the AIT (Advanced Incell Touch) technology arranged with the touch sensing electrode and transmission line inside. This certification is a system evaluating and certifying the technology and value of minimizing the emission of GHG and pollutants by using the energy and resources efficiently. LG Display's AIT technology was certified as the Green Technology by reducing the GHG emission and use of are metals by decreasing in power consumption and use of parts during the processing stage.

Year 2022: Luminous efficiency of the organic element on the vehicle display was improved (P-OLED: Plastic OLED, and LTPS: Low Temperature Polycrystalline Silicon LCD) along with improvement of liquid crystal transmittance for the first time in the industry to receive the SGS Eco Mark through reduction of power consumption (Max. reduction of 29%) and harmful substances, and anti-microbial film was applied on the IT Display to receive the SGS Performance Certification (anti-bacterial activity).

#### **Time horizon**

Long-term

#### Likelihood



Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

1,294,642,623,762

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact figure**

Change in the needs of the customer according to climate change is an important factor that must be identified by the company. As the eco-friendly products are increasing in global interest, and environmental laws and regulations on products, and regulations on harmful substances are being reinforced, developing products complying with these standards can lead to profit for the company. Among the key research areas, LG Display is expecting to secure the market dominance and increase in sales by focusing on developing low power consumption and eco-friendly products to provide the products satisfying the needs of the customers. When the global market share of LG Display is increased by 1%, the sales amount is estimated to increase by approximately KRW 1,295 billion. This calculated in the 2022 standard of 20.2% in global market share, and sales amount of KRW 26,151,781,000,000.

LGD Sales Amount on 1% Increase in Global Market Share: KRW 27,446,423,623,762=((KRW 26,151,781,000,000\*21.2%(2022 Market Share of 20.2%+1% Increase))/20.2%

Increased Amount: KRW 1,294,642,623,762 = KRW 27,446,423,623,762 (Sales Amount on 1% Increase in Global Market Share) – KRW 26,151,781,000,000 (2022 Sales Amount)

#### Cost to realize opportunity

2,431,680,000,000

#### Strategy to realize opportunity and explanation of cost calculation

For product differentiation, LG Display is identifying the needs of the customers to perform research on the development of core technologies accordingly, and approximately KRW 2.1 trillion was invested in R&D expenses in 2021. One of the main performances of the investment was the world's first development of mobile 5.8 FHD+ product applied with M+ technology. The low-power, eco-friendly technology of M+ for reducing the power consumption by 35% compared to the past was developed and



applied to the product in 2014, and 'QPM Certificate' was received from Intertek for the quality and performance. In addition, the local dimming technology of reducing the power consumption on dark parts is used to develop the core nano-cell of the 3rd Generation Super Ultra HD TV with very low power consumption, and eco-friendly product certification was received on 20 models in 2017.

In 2021, Green Technology Certification was acquired through the AIT (Advanced In-cell Touch) technology arranged with the touch sensing electrode and transmission line inside. This certification is a system evaluating and certifying the technology and value of minimizing the emission of GHG and pollutants by using the energy and resources efficiently. LG Display's AIT technology was certified as the Green Technology by reducing the GHG emission and use of are metals by decreasing in power consumption and use of parts during the processing stage.

In 2022, luminous efficiency of the organic element on the vehicle display was improved (P-OLED: Plastic OLED, and LTPS: Low Temperature Polycrystalline Silicon LCD) along with improvement of liquid crystal transmittance for the first time in the industry to receive the SGS Eco Mark through reduction of power consumption (Max. reduction of 29%) and harmful substances, and anti-microbial film was applied on the IT Display to receive the SGS Performance Certification (anti-bacterial activity).

In addition, eco-friendly certification program was developed with the TUV SUD certification agency in terms of outstanding resource circulation composed of satisfying the WEEE regulation, resource recycling and non-use of specific harmful substances, and this program was used to acquire the certification on the OLED TV and PO Mobile Model.

To receive the certifications on eco-friendly technology such as Green Technology Certification, TUV Certification and SGS Certification, etc., KRW 90 million was used in 2022 for the certification cost.

#### Comment

- 1) R&D Investment Cost: KRW 2.4 trillion (2,431,590,000,000)
- 2). Eco-friendly Technology Certification Cost: KRW 90 million

#### Identifier

Opp3

#### Where in the value chain does the opportunity occur?

Direct operations

#### **Opportunity type**

Markets

#### Primary climate-related opportunity driver

Access to new markets



#### Primary potential financial impact

Increased revenues through access to new and emerging markets

#### Company-specific description

Identifying the customer needs, consumption pattern and trend is very important for companies manufacturing and supplying products to customers. As the awareness on climate change is increased, and the customer requirements are changed to the direction of preferring eco-friendly products, companies must develop corresponding products.

Providing the appropriate products according to this trend can become a good opportunity on securing the market dominance, and to increase the competitiveness. Also, eco-friendly image can be used as the opportunity in the emerging markets such as the countries in the process of economic growth and industrialization. Moreover, accessibility to the new Chinese market receiving the spotlight as the emerging market can be increased. China is establishing the ambitious plan for achieving Net Zero by 2060, and there can be opportunity of expecting sales increase by applying the carbon reduction technology, etc. to China with high dependency on coal.

#### **Time horizon**

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

1,294,642,623,762

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

#### **Explanation of financial impact figure**

Companies failing to respond appropriately to the social responsibilities of the company on climate change can result in negative impact to the corporate image such as decreasing in investment value, etc. The corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. When the global market share of LG Display is increased by 1%, the sales amount is estimated to increase by approximately KRW 1,295 billion. This calculated in the 2022 standard of 20.2% in global market share, and sales amount of KRW 26,151,781,000,000.



LGD Sales Amount on 1% Increase in Global Market Share: KRW 27,446,423,623,762=((KRW 26,151,781,000,000\*21.2%(2022 Market Share of 20.2%+1% Increase))/20.2%

Increased Amount: KRW 1,294,642,623,762 = KRW 27,446,423,623,762 (Sales Amount on 1% Increase in Global Market Share) – KRW 26,151,781,000,000 (2022 Sales Amount)

#### Cost to realize opportunity

2,687,380,000,000

#### Strategy to realize opportunity and explanation of cost calculation

For product differentiation, LG Display is identifying the needs of the customers to perform research on the development of core technologies accordingly, and approximately KRW 2.4 trillion was invested.

LG Display invested approximately KRW 5.79 billion in 2022 to purchase the renewable energy for the purpose of ESG management, and transition to renewable energy will be gradually accelerated.

Also, KRW 250 billion of ESG Bonds (Green Bonds) were issued for investment in the eco-friendly product of OLED production equipment and facilities, and the amount was used in the investment in OLED product manufacturing equipment and facilities as planned.

#### Comment

- 1) R&D Investment Cost: KRW 2.4 trillion (2,431,590,000,000)
- 2) Renewable Energy Purchase Cost: KRW 5.79 billion
- 3)ESG Bond (Green Bond) Issue Cost: KRW 250 billion

#### Identifier

Opp4

#### Where in the value chain does the opportunity occur?

Direct operations

#### Opportunity type

Energy source

#### Primary climate-related opportunity driver

Use of lower-emission sources of energy

#### Primary potential financial impact

Increased revenues through access to new and emerging markets

#### Company-specific description



Financial institutions and investors are utilizing the assessment results by the evaluation agencies related to sustainability and climate change such as CDP and DJSI as the factors for determining the investment. Companies must fulfill the social responsibility activities, and these activities are ultimately connected to the performance to improve the increase in sales amount. Efforts are continued on fulfilling the social responsibilities by responding preemptively on climate issues through activities such as participating in the carbon information disclosure project related to climate change, and GHG reduction activities, etc., and reputation related to sustainability will be managed consistently. In 2018, LG Display was included in the Asia-Pacific Index of the Dow Jones Sustainability Index (DJSI) for 6 consecutive years, and the high energy management level and energy-saving efforts were recognized to receive the certification as the outstanding business site (Energy Champion) from MOTIE (Ministry of Trade, Industry & Energy) and KEA (Korea Energy Agency). In addition, Gumi Plant 1 was recognized with the continuous environmental improvement performance, and designated as the Green Enterprise for 26 years from 1997.

#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

1,294,642,623,762

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact figure**

Companies failing to respond appropriately to the social responsibilities of the company on climate change can result in negative impact to the corporate image such as decreasing in investment value, etc. The corporate brand image is a factor that has impact on not only the sales, but also in continuity of the company in long-term. Therefore, decrease in corporate value can have considerable impact in the economic perspective. When the global market share of LG Display is increased by 1%, the sales amount is estimated to increase by approximately KRW 1,295 billion. This calculated in the 2022 standard of 20.2% in global market share, and sales amount of KRW 26,151,781,000,000.

LGD Sales Amount on 1% Increase in Global Market Share: KRW



27,446,423,623,762=((KRW 26,151,781,000,000\*21.2%(2022 Market Share of 20.2%+1% Increase))/20.2%

Increased Amount: KRW 1,294,642,623,762 = KRW 27,446,423,623,762 (Sales Amount on 1% Increase in Global Market Share) – KRW 26,151,781,000,000 (2022 Sales Amount)

#### Cost to realize opportunity

6,990,000,000

#### Strategy to realize opportunity and explanation of cost calculation

LG Display will continue the efforts on fulfilling the social responsibilities through ecofriendly management. In 2022, KRW 6.6 billion was invested in equipment for reducing the process gas, and GHG reduction (10% reduction compared to 2021\_refer to Question 7.9a. Reduction Verification Cost: KRW 300 million) was recognized to receive the Honors Club in the IT Sector for 7 consecutive years. LG Display will continue to respond preemptively also in the eco-friendly management activities to take effort in fulfilling the social responsibilities.

In 2021, Green Technology Certification was acquired through the AIT (Advanced In-cell Touch) technology arranged with the touch sensing electrode and transmission line inside. This certification is a system evaluating and certifying the technology and value of minimizing the emission of GHG and pollutants by using the energy and resources efficiently. LG Display's AIT technology was certified as the Green Technology by reducing the GHG emission and use of metals by decreasing in power consumption and use of parts during the processing stage.

In 2022, luminous efficiency of the organic element on the vehicle display was improved (P-OLED: Plastic OLED, and LTPS: Low Temperature Polycrystalline Silicon LCD) along with improvement of liquid crystal transmittance for the first time in the industry to receive the SGS Eco Mark through reduction of power consumption (Max. reduction of 29%) and harmful substances, and anti-microbial film was applied on the IT Display to receive the SGS Performance Certification (anti-bacterial activity).

In addition, eco-friendly certification program was developed with the TUV SUD certification agency in terms of outstanding resource circulation composed of satisfying the WEEE regulation, resource recycling and non-use of specific harmful substances, and this program was used to acquire the certification on the OLED TV and PO Mobile Model.

To receive the certifications on eco-friendly technology such as Green Technology Certification, TUV Certification and SGS Certification, etc., KRW 90 million was used in 2022 for the certification cost.

#### Comment

- 1) Process Gas Decomposition Equipment Investment Cost (2022): KRW 6.6 billion
- 2) Greenhouse Gas (GHG) Reduction / Statement Verification Cost: KRW 300 million
- 3) Eco-friendly Technology Certification Cost: KRW 90 million



### 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

LG Display is disclosing the 1.5°C Scenario externally, and establishing the Climate Transition Plan accordingly.

In addition, feedback from the shareholders on the Climate Transition Plan is collected and responded through the exclusive department on communicating with the shareholders.

The mechanism on collecting the feedback and responding to the shareholders is that when the feedback of the shareholder is collected initially through the department communicating with the shareholders, the relevant feedback is shared with the responsible department. The responsible department supplements the Climate Transition Plan through the feedback, and relevant contents are delivered to the shareholders through decision-making by the CEO.

Through these series of processes, LG Display is communicating with the shareholders on the Climate Transition Plan.

#### Frequency of feedback collection

Annually

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

#### 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	
Row 1	Yes, quantitative	

# 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 NGFS scenarios framework	Company- wide		LG Display adopted the Net Zero 2050 scenario by NGFS for analysis to comply with the domestic and foreign climate change response trends, and requirements of carbon reduction by the stakeholders. Carbon emission organization boundaries were analyzed limited to the domestic and overseas business sites (Scope1+Scope2), and Scope 3 was excluded from this scenario analysis as the total emission in SBTi standard was less than 40%.  Based on the production plan in consideration of the domestic and overseas environmental and technical characteristics of the display industry, LCD assumed the decrease in LCD until 2030 for closing, and increase trend of OLED until 2050 to forecast the estimated emission in 2023~2050 (BAU4)).  The carbon emission structure of LG Display is classified into process gas (F-Gas, N2O) and power, and specialized group for each area considered the process gas reduction/energy-saving technology level to materialize the reduction task, and reflect the goal. For the reduction of process gas emission, LG Display plan developing and applying the high-efficiency scrubber possible for reducing F-Gas by 99%, and N20 by 80% until 2050.  For energy-saving, estimated energy-saving goal until 2050 was reflected through regression analysis based on previous performances, and increased to about 4 times higher than the energy-saving amount in 2022. In addition, renewable energy will be expanded in connection fo the requirements of main customers and stakeholders, and the implementation portfolio will be diversified from Green Premium to PPA to expand the possibility of adding the renewable energy.  Remaining emission difficult for technical reduction after the internal reduction activities such as process emission reduction activity, energy-saving and



	1	
		transition to renewable energy, etc. were established with the final goal of achieving 2050 Net Zero through purchase of CER for offsetting the remaining emission amount.  Total of KRW 51 billion was invested from 2018 to 2022 for F-Gas reduction, and investment will be continued until 2050 to develop/apply the emission reduction technology. In 2023, approximately KRW 5 billion was invested in Green Premium and REC purchases to enable transition to renewable energy equivalent to about 13% of the total power usage in the company, and this will be gradually increased to expect annual average of KRW 50 billion (Standard of current unit price) or more to be executed as the expenses for renewable energy.
Physical climate scenarios RCP 8.5	Company- wide	Due to the climate change, average temperature is increasing globally, and occurrence frequency of natural disasters such as heatwave, tsunami and flood, etc. are also increasing.
		In the 6th IPCC Report, SSP (Shared Socio-economic Pathways) was utilized to analyze 27 types of scenarios such as temperature, precipitation and extreme climate indicator during 2021~2100, and among these indicators, LG Display derived heatwave and increase in average temperature as the factors with significant impact. SSP1-2.6 and SSP 5-8.5 scenarios were used for comparative analysis of the risks and opportunity factors according to the heatwave and increase in average temperature based on each SSP scenario.
		SSP GHG concentration forecast and performance of adaptive measures on climate change were utilized to derive the detailed climate change scenario in South Korea (1km). In the comparative analysis through the SSP 1-2.6 scenario and SSP 5-8.5 scenario, analysis on the number of days with heatwave showed insignificant difference of 1.0 day in the first half, but increase in number of days with heatwave up to 55.4 days is estimated in the second half of the year. In addition, analysis of average temperature showed 0.2°C increase in the first half, but estimated to increase up to 4°C in the second half of the year.
		Therefore, the impact according to the increase in the number of days with heatwave and average



temperature is estimated to result in increase in power usage and electricity cost on the equipment such as the chiller used in product manufacture, etc.
To reduce the impact from the physical risks, LG Display is expanding the energy-saving activities and use of renewable energy continuously such as investment in high-efficiency equipment, energy-saving through process optimization, and efficiency of Dx- based equipment operation, etc.

# 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**

The key issue is judged to be the current national reduction technology and renewable energy infrastructure status. There is absence of reduction technology for achieving Net Zero, and generation amount of renewable energy is very insufficient. Major issues for solution are judged to be increase in investment in reduction equipment, development of reduction technology through collaboration, and reviewing the application of PPA/equity investment for securing the stability and economic feasibility in supply.

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

Based on the emission in 2018~2021 in the domestic business sites, CAGR (BAGR of 2018~2022 applied) in production quantity in the display industry, and LCD and OLED unit in 2020 (emission/production area), emission until 2050 was forecasted. In this process, LCD was assumed of discontinuing the production from 2030, and OLED will be increased in production volume regarding the production quantity, and NF3 not included in the 6 major domestic GHG according to the national policy was included. Also, GHG reduction was assumed to be realized considerably with the national policy on reducing the GHG emission in the semiconductor and display industries until 2050 to perform the analysis. In the reduction process, annual F-Gas reduction efficiency and N20 reduction efficiency relevant to Scope 1 were applied, and various renewable energy transition methods (REC and PPA, etc.) were considered in Scope 2. Currently, the process gas in Scope 1 is showing consistent linear curve through investment in reduction equipment to achieve the goal. However, the current domestic renewable energy generation amount is less than 10% of the overall national energy generation amount, and reduction on Scope 2 is estimated to show an exponential curve. In addition, low-energy production equipment / utility technology will be developed and applied to promote the energy-saving activity on the Scope 2 consistently.



currently, LGD is reducing the Scope 2 partially through the company-wide reduction activity. As the main activity, 13% of the company-wide energy usage was replaced by renewable energy through utilization of Green Premium System in Korea, and REC System in China and Vietnam in 2022. The Green Premium System is currently an optimum method for enabling LGD to convert to renewable energy, and decision was made by the ESG Committee. In the future, expenses required for investment in reduction equipment and development of reduction technologies will be reflected in the financial plan along with transition to renewable energy, and eco-friendliness requested by the customers will be realized more actively.

# 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	As the business strategy for responding to the climate change, LG Display performed downsizing on the LCD TV (Compared to LCD, OLED is an eco-friendly product consuming 30% less power, and reduced with plastic usage by 90% or more) production to reduce the production capacity to about 18%. Meanwhile, response is made to climate change through the strategy of stopping the LCD production for iPhone completely to change to POLED for production, and the production portion of the low-power product of OLED will be increased. As a case of reflecting the strategy, decision was made in 2021 on additional expansion of 30,000 in 8th Generation production capacity in the China CO Corporation (OLED Specialized Production Fab).  in addition, decision was made in 2021 and 2022 to issue the ESG Bond (Green Bond), and KRW 445 billion (2021) and KRW 250 billion (2022) raised as funds through issue of bonds are planned to be used on the facilities for extending the OLED panel production line in LGD.  LGD is reflecting the ETS (Emission Trading Scheme) and overseas standard compliances in the risks at all times in long-term perspective to perform the investment. Actually, LGD established the reduction goal until 2050 to perform the investment in a timely manner, and reduction



		performances are disclosed through the ESG Report.
Supply chain and/or value chain	Yes	Impact of climate change is shown in the overall value chain from the raw materials inputted in product manufacture to quality of the parts and product demand. Regulations on GHG emission have significant impact not only LG Display, but also on the business sites of the supply chain and on the use and disposal of products for sale. There can be cases of having to change the domestic supplier to overseas supplier due to non-compliance with the regulations on GHG emission by the domestic supplier, and this can result in increasing the material cost. Therefore, GHG emission and environmental issues of the suppliers are also managed separately and annually through carbon partnership. (Portion of emissions from the carbon partnership suppliers in the total LGD emission (including Scope1, 2, 3) is relevant to 4% in 2022) In addition, expenses on procurement of raw materials and equipment through the supply chain in one 1 year is 70% (2022 standard) of the sales amount, and therefore, the impact is judged to be very significant.  Accordingly, carbon partnership certification (GHG emission performance management, energy-saving performance management, and providing energy-saving item) is performed on LGD suppliers through the annual Green Shared Growth activity. Also, suppliers are included in the strategic scope at all times to secure the sustainability of the suppliers in the supply chain through ESG management (risk management in environment and safety, etc.), and to strengthen the capabilities of the suppliers in long-term perspective. As the ESG management requirements on the LGD suppliers are gradually increasing by the customers, LGD included in the shared growth strategy on suppliers from 2018 regarding the performance of inspection on the suppliers as the standard.
Investment in R&D	Yes	As the customer demand for eco-friendly products and low-carbon products is increasing, products failing to satisfy these demands are reduced in demand, and also decreased in market share. Decrease in market share immediately results in declining in sales. Development of eco-friendly products and low-carbon products and occur with burden to the corporate R&D investment, and on new environmental equipment investment. Due to these reasons, LG Display is reflecting the R&D investment cost in the annual business strategy, and the portion is gradually increasing to judge that the impact is significant.



		(2020:7.2%, 2021: 7.1%, 2022: 9.3%) Through LG Display's differentiated technology (low-carbon technology) and product development, active investment is reflected in the business strategy for preemptive response to the global market demand.  Development of low-carbon products and eco-friendly products is always a significant task of LGD, and this is always reflected in the risk in long-term perspective. Increasing the R&D investment cost annually is a strategic case on climate change by LGD. Actually, R&D investment cost was increased by KRW 303.9 billion in 2022 compared to 2021, and investment will be continued on R&D activities.
Operations	Yes	Investment cost and R&D expenses on the technology for reflecting the high-efficiency and low-power products in terms of product manufacture in the overall business site, operating the TDR for implementing company-wide energy-saving, and reducing the process gas are always reflected in the business plan.  For example, ① company-wide power usage was reduced by 454GWh in 2022. ② Amount for investing in the reduction equipment for reducing the process gas in Paju Plant was reflected, and KRW 6.6 billion was actually invested to install the reduction equipment. ③ Also, R&D expenses for developing low-carbon products are increased annually for reflection. (2020:7.2%, 2021:7.1%, 2022: 9.3%) In 2022, R&D investment cost was increased by KRW 303.9 billion compared to 2021, and investment will be continued on R&D activities.  Moreover, models produced in the business site annually are acquired with eco-friendly certification to enhance the eco-friendly image of LGD, and verification on the reduction of GHG emission for each business site is also received.  All expenses in the product manufacturing perspective or for improving the eco-friendly image are reflected in LGD's financial expenses (strategy). The overall expenses used in 2022 were approximately KRW 2,437 billion, which is relevant to 9.3% of the sales amount in 2022. Therefore, it is judged to have significant impact to the strategies of LG Display.  As the GHG emission from the business site is relevant to 99% of the total emission, and achieving the reduction goal has impact to the sales of the company, this is also reflected in the risk at all times in long-term perspective for



management. These risks are also included in the LGD
strategy on climate change.

# 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	influenced Revenues Direct costs Indirect costs Capital expenditures Capital allocation Access to capital	NF3 is currently not included in the 6 major GHG according to the Korea ETS, and LG Display is reflecting the investment in the reduction technology to the business strategy for other 6 major GHG. However, when we consider the possibility of unregulated GHG of NF3 being included in the ETS for regulation from 2026, and the US EPEAT(Electronic Product Environmental Assessment Tool) certification standard (90% or more of F-Gas reduction rate must be satisfied) being reinforced, it is estimated that the sales amount (2022 Standard) will be reduced by approximately KRW 261,518 million when the global market share is decreased by 1%. Estimated period is considered to be 4 years (short-term), and the standard is considered with the possibility of NF3 being included in the ETS for regulation from 2026. Also, 6 major GHG complied with the emission compared to the quota for responding to the ETS, and level (EPEAT) required by the customer is satisfied until now. Therefore, it is considered that there is no impact to the decrease in sales due to climate change. As LG Display is actively reflecting the R&D investment portion for energy-saving currently in terms of low-carbon technology, and responding according to the reputation or market flow in terms of eco-friendly image, it is judged that there is no impact to the sales in the current stage. However, risks are managed and monitored at all times in long-term perspective.  The climate change risk doesn't have impact in the current stage, but the GHG regulations are monitored at all times to take preemptive response. On the contrary, compliance of the climate change standards/regulations increases the preference of the customers to enable increase in the final sales.  As a method of reduction technology, after being applied with ETS (Emission Trading Scheme) in 2015, LGD invested in the equipment for replacing the SF6 process gas used in the dry etching process to the gas with relatively lower carbon emission, and plasma scrubber was installed
		to reduce the GHG emission. Through this, the SF6 usage in the overall plants in 2022 was reduced by 68% compared to 2015 (Reduction technology introduced in 2015). Due to the response according to the change in ETS regulations, and customer requirement on GHG reduction,



investment cost (direct expenses) on reduction equipment for responding to the laws/standard in new and existing plants must be reflected in the financial plan at all times for response. Indirect expenses are reduced from transition to low-carbon energy, but the direct expenses on equipment investment were increased from introduction of reduction equipment. In 2022, LGD invested KRW 6.6 billion on GHG reduction equipment.

Climate change related investments also have significant impact to the sales and reputation of the company, so monitoring is required at all times in long-term perspective to reflect the investment in the financial plan.

In addition, LGD has an exclusive department on managing the domestic energy to perform energy-saving annually. (2020:762GWh, 2021: 437GWh, 2022: 454GWh) The exclusive department on energy is reflecting the reduction amount of energy cost annually to include in the company-wide operating expenses. LGD is ranked No. 5 in Korea on power usage, and reduction activities must be performed in long-term for reducing the energy cost in the future. Indirect expenses required for domestic power usage are estimated to gradually decrease in the future. Some customers are strongly requiring the 100% transition to renewable energy (2022~) on the energy used in the factories manufacturing the products for the customers, and to achieve the Net Zero in long-term, indirect investment cost (expenses for purchasing the REC Certificate and direct purchase of renewable energy) for introducing the renewable energy is estimated to increase. Therefore, indirect expenses must also be reflected in the financial plan when the introduction of renewable energy in the overseas corporation is determined.

As the business strategy for diversifying the panel production and for expanding the production capacity, investment is continued in the expansion and renovation of existing production facilities including additional production line and new factory construction. In the process of reflecting the investment, capital expenditure of occupying high portion in the high-efficiency product of OLED is reflected in consideration of climate change. Increase in the OLED demand was estimated to announce the plans on the E5 and E6 production lines in 2015 and 2016, and among them, E5 (2017) / E6 (2019) was initiated with mass production. In 2018, new large-sized OLED production line was newly established in July, 2018 in the name of LG Display High-Tech (China) Co., Ltd. through joint investment with the Guangzhou Government, and approximately KRW 5 trillion in capital expenditure was invested for this establishment. The China CO Corporation started the OLED production in full-scale from July, 2020. Also, total investment amount in the plastic OLED equipment was KRW 7.8 trillion (2019), and KRW 3 trillion (2020) in 10.5th Generation Large-size OLED Panel production facility and KRW 3.3 trillion (2021) in mid-large size OLED facility was invested to establish



the foundation for the OLED business to provide the business strategy on increasing the portion of low-power / high-efficiency products in response to climate change. Capital expenditure reflects the future business strategy, so reflecting the risks and opportunities of climate change in the business strategy is judged to have very significant impact. LG Display declared the product strategy of withdrawing from the LCD business to convert to the OLED business, and in this process, capital expenditure on the OLED equipment is always reflected in the financial plan to realize the mid-long term vision of 'You Dream, We Display'. As the business strategy for diversifying the panel production and for expanding the production capacity, investment is continued in the expansion and renovation of existing production facilities including additional production line and new factory construction. In the process of reflecting the investment, capital expenditure of occupying high portion of the high-efficiency product of OLED is reflected in consideration of climate change, and funds were borrowed from the bank for financing. LG Display raised the domestic funds of KRW 2,435 billion domestically for business investment in the low-power product of OLED, and KRW 5,948.5 billion was financed from China Construction Bank, etc. for investment in the Guangzhou OLED production line (China). Investment reflects the future business strategy, so reflecting the risks and opportunities of climate change in the business strategy is judged to have very significant impact.

# 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

Row No, and we do not plan to in the next two years

# 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, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

# **Target ambition**

Well-below 2°C aligned

# Year target was set

2016

### **Target coverage**

Company-wide

# Scope(s)

Scope 1

Scope 2

# Scope 2 accounting method

Location-based

Scope 3 category(ies)

# Base year

2014

Base year Scope 1 emissions covered by target (metric tons CO2e) 4,893,278

Base year Scope 2 emissions covered by target (metric tons CO2e) 3,255,244

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

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

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)

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



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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

8,148,522

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

100

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

100

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)

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)

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)

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)

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)

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)



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)

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)

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)

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)

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)

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)

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)

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)

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)



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

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

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

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

100

Target year

2022

Targeted reduction from base year (%)

20

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

6,518,817.6

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,158,706

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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

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

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)

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



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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

6,311,036

### 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]

112.7496495684

# Target status in reporting year

Achieved

### Please explain target coverage and identify any exclusions

Scope 3 goal was established separately in Ab4.

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

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

Approximately KRW 51 billion was invested from 2018 to install the process gas (F-Gas) removal/reduction equipment (Plasma scrubber), and 1.52 million tCO2 of GHG was reduced in 2022 through this investment.

In 2022, 1,096Gwh of renewable energy was purchased through Green Premium and REC, and 800,000 tCO2 of GHG was reduced through this purchase. company-wide energy-saving activities were performed such as improving the cold water manufacture and chiller efficiency by utilizing the waste heat from the CDA compressor to reduce 210,000 tCO2 in GHG.

# Target reference number

Abs 2

# Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

# **Target ambition**

Well-below 2°C aligned

#### Year target was set

2016



# **Target coverage**

Company-wide

# Scope(s)

Scope 1

Scope 2

# Scope 2 accounting method

Location-based

Scope 3 category(ies)

#### Base year

2014

Base year Scope 1 emissions covered by target (metric tons CO2e) 4,893,278

Base year Scope 2 emissions covered by target (metric tons CO2e) 3.255.244

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

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

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)

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

8,148,522

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



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

100

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)

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)

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)

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)

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)

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)

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)

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)

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)



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)

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)

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)

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)

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)

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)

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

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

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

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 (%)

40

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

4,889,113.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,158,706

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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

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

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)

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

6,311,036

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]

56.3748247842

Target status in reporting year

Retired

Please explain target coverage and identify any exclusions



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

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

# Target reference number

Abs 3

# Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

# **Target ambition**

Well-below 2°C aligned

# Year target was set

2016

#### **Target coverage**

Company-wide

# Scope(s)

Scope 1

Scope 2

# Scope 2 accounting method

Location-based

# Scope 3 category(ies)

### Base year

2014

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

4,893,278

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

3,255,244

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

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



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)

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

8,148,522

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

100

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

100

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)

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)

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)

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)



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)

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)

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)

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)

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)

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)

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)

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)

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)

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)



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)

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

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

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

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]

814,852.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,158,706

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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

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

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)



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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

6,311,036

# 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]

25.0554776819

## Target status in reporting year

Retired

Please explain target coverage and identify any exclusions

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

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

# Target reference number

Abs 4

# Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

#### **Target ambition**

Well-below 2°C aligned

# Year target was set

2021

# **Target coverage**

Site/facility



# Scope(s)

Scope 3

Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Base year

2018

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

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

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

331,825

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

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)

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

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

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

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

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



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

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

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

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

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

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

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

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

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

Base year total Scope 3 emissions covered by target (metric tons CO2e) 395,188

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

395,188

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

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



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)

100

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)

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)

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)

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)

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)

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)

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)

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)



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)

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)

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)

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)

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)

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)

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

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

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

84

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

84

Target year

2050



Targeted reduction from base year (%)

82.5

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

69,157.9

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

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

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

248,454

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

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)

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

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

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

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

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

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



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

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

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

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

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

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

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

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

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e) 261,501

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

261,501

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]

Target status in reporting year

Underway

41.0044962106

Please explain target coverage and identify any exclusions



- 1. Scope 3 was established with the goal limited to the purchased goods and services among Scope 3 in Korea.
- 2. The base year was designated with the fiscal year (Jan. 1, 2018 ~ Dec. 31, 2018).

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

LGD established the Scope 3 reduction goal of reducing 2.5% annually compared to the base year.

#### [Reduction Activity]

Energy-saving items are provided periodically to the suppliers, and annual energy-saving goal is established to monitor the achievement of the goal.

As the company-wide goal is not achieved on Scope 3, and clear reduction goal is not established in the overseas corporation Scope 3, the reduction amount is estimated to be reduced in short-term, but the reduction goal is estimated to be gradually in the level possible for achievement when the detailed Scope 3 reduction method is materialized in the future. Therefore, Scope 3 reduction will be performed through the exponential curve.

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

# Target reference number

Abs 5

# Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

# **Target ambition**

1.5°C aligned

#### Year target was set

2023

#### **Target coverage**

Company-wide

# Scope(s)

Scope 1

Scope 2

# Scope 2 accounting method

Location-based

#### Scope 3 category(ies)

### Base year



2018

Base year Scope 1 emissions covered by target (metric tons CO2e) 3,705,288

Base year Scope 2 emissions covered by target (metric tons CO2e) 4,459,985

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

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

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)

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

8,165,273

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

100

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

100

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)

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)



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)

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)

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)

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)

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)

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)

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)

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)

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)



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)

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)

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)

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)

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

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

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

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 (%)

53

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

3,837,678.31

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,158,706



Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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

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

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)

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

6,311,036

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] 42.8468267669

Target status in reporting year

New

#### Please explain target coverage and identify any exclusions

- 1. 2050 Net Zero was reviewed/approved through the ESG Committee within the reporting period. It was newly introduced as the short-term goal on achieving the Net Zero by 2050.
- 2. Scope 3 goal was established separately in Ab4.
- 3. The base year was designated with the fiscal year (Jan. 1, 2018 ~ Dec. 31, 2018).

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



First of all, the plan is to participate actively in the government policies related to the climate change, and reduce the usage of process gas on the production equipment. In addition, foundation for systematic reduction will be provided through the investment in the reduction equipment of decomposing and removing the process gas, and by developing and applying the low-power production equipment and utility technologies. Lastly, efforts are continued to achieving the emission reduction goal by strategic transition of thermal power generated energy to renewable energy. To achieve the final goal of Net Zero by 2050, high-efficiency process gas (reduction efficiency of 99% or more) emission reduction technology will be developed and applied, and low-carbon and eco-friendly gas will be developed alternatively. In addition, PPA will be gradually increased directly in mid-long term for stability in renewable energy supply. Moreover, inspection and report on implementing the Net Zero will be performed periodically through the ESG Committee.

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

#### Target reference number

Abs 6

## Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

## **Target ambition**

Well-below 2°C aligned

#### Year target was set

2023

## **Target coverage**

Company-wide

## Scope(s)

Scope 1

Scope 2

## Scope 2 accounting method

Location-based

#### Scope 3 category(ies)

### Base year

2018

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

3,705,288



Base year Scope 2 emissions covered by target (metric tons CO2e) 4,459,985

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

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

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)

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

8,165,273

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

100

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

100

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)

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)

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)



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)

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)

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)

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)

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)

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)

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)

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)

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)



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)

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)

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)

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

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

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

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 (%)

67

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

2,694,540.09

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,158,706

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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



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

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)

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

6,311,036

## 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] 33.8937584873

## Target status in reporting year

New

#### Please explain target coverage and identify any exclusions

- 1. 2050 Net Zero was reviewed/approved through the ESG Committee within the reporting period. It was newly introduced as the short-term goal on achieving the Net Zero by 2050.
- 2. Scope 3 goal was established separately in Ab4.
- 3. The base year was designated with the fiscal year (Jan. 1, 2018 ~ Dec. 31, 2018).

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

First of all, the plan is to participate actively in the government policies related to the climate change, and reduce the usage of process gas on the production equipment. In addition, foundation for systematic reduction will be provided through the investment in the reduction equipment of decomposing and removing the process gas, and by developing and applying the low-power production equipment and utility technologies. Lastly, efforts are continued to achieving the emission reduction goal by strategic transition of thermal power generated energy to renewable energy. To achieve the final goal of Net Zero by 2050, high-efficiency process gas (reduction efficiency of 99% or



more) emission reduction technology will be developed and applied, and low-carbon and eco-friendly gas will be developed alternatively. In addition, PPA will be gradually increased directly in mid-long term for stability in renewable energy supply. Moreover, inspection and report on implementing the Net Zero will be performed periodically through the ESG Committee.

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

### Target reference number

Abs 7

## Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

#### **Target ambition**

Well-below 2°C aligned

## Year target was set

2023

## **Target coverage**

Company-wide

## Scope(s)

Scope 1

Scope 2

## Scope 2 accounting method

Location-based

## Scope 3 category(ies)

#### Base year

2018

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

3,705,288

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

4,459,985

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



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

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)

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

8,165,273

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

100

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

100

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)

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)

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)



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)

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)

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)

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)

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)

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)

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)

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)

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)

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)



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)

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)

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

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

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

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 (%)

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) 1,158,706

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 5,152,330

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

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



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)

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

6,311,036

## 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]

22.7088181865

## Target status in reporting year

New

#### Please explain target coverage and identify any exclusions

- 1. 2050 Net Zero was reviewed/approved through the ESG Committee within the reporting period. It was newly introduced as the short-term goal on achieving the Net Zero by 2050.
- 2. Scope 3 goal was established separately in Ab4.
- 3. The base year was designated with the fiscal year (Jan. 1, 2018 ~ Dec. 31, 2018).

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

First of all, the plan is to participate actively in the government policies related to the climate change, and reduce the usage of process gas on the production equipment. In addition, foundation for systematic reduction will be provided through the investment in the reduction equipment of decomposing and removing the process gas, and by developing and applying the low-power production equipment and utility technologies. Lastly, efforts are continued to achieving the emission reduction goal by strategic transition of thermal power generated energy to renewable energy. To achieve the final goal of Net Zero by 2050, high-efficiency process gas (reduction efficiency of 99% or more) emission reduction technology will be developed and applied, and low-carbon and eco-friendly gas will be developed alternatively. In addition, PPA will be gradually increased directly in mid-long term for stability in renewable energy supply. Moreover,



inspection and report on implementing the Net Zero will be performed periodically through the ESG Committee.

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

## C4.2

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

Net-zero target(s)

## 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

Abs7

Target year for achieving net zero

2050

#### Is this a science-based target?

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

## Please explain target coverage and identify any exclusions

LG Display's GHG reduction goal was not approved by SBTi, but the risks and opportunities of the climate change having impact to the company were analyzed through the climate change scenario to set the goal. Net Zero 2050 Scenario by NGFS was utilized for the scenario on the transition risk, and SSP utilized in the 6th IPCC Assessment Report was used for the scenario on the physical risk.

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

Unsure

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



## 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		
To be implemented*		
Implementation commenced*		
Implemented*	781	2,555,480
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

Non-energy industrial process emissions reductions

Other, please specify

Reduction equipment (Plasma Scrubber) is invested and operated for removing/reducing the process gas (F-Gas) inputted in the panel production process.

## Estimated annual CO2e savings (metric tonnes CO2e)

1,524,020

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)



36,407,313,780

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

5,720,000,000

## Payback period

<1 year

#### Estimated lifetime of the initiative

<1 year

#### Comment

Approximately KRW 51 billion was invested from 2018 to install the process gas (F-Gas) removal/reduction equipment (Plasma scrubber), and 1.52 million tCO2 of GHG was reduced in 2022 through this investment.

## Initiative category & Initiative type

Low-carbon energy consumption

Other, please specify
renewable energy (Solar energy, etc.) is purchased for use.

## Estimated annual CO2e savings (metric tonnes CO2e)

796,834

## 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)

19,035,567,426

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

5,787,530,694

## Payback period

<1 year

#### Estimated lifetime of the initiative

<1 year

#### Comment

In 2022, 1,096Gwh of renewable energy was purchased through Green Premium and REC, and 800,000 tCO2 of GHG was reduced through this purchase.

## Initiative category & Initiative type

Energy efficiency in production processes



#### Other, please specify

Technology for improving the energy efficiency such as the power in the display manufacturing process, etc. is developed and applied.

## Estimated annual CO2e savings (metric tonnes CO2e)

208,572

## 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)

4,982,576,508

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

0

## Payback period

<1 year

#### Estimated lifetime of the initiative

<1 year

## Comment

Company-wide energy-saving activities were performed such as improving the cooling water manufacture and chiller efficiency by utilizing the waste heat from the CDA compressor to reduce 210,000 tCO2 in GHG.

## C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	For energy-saving and improving the equipment efficiency, LG Display is reflecting the budget on the equipment investment and repair annually, and energy usage, etc. are inspected every month to verify the investment and performance of repair.
Dedicated budget for low- carbon product R&D	Development of eco-friendly product is linked with business strategy on the low-carbon products possible for minimizing the energy consumption to reflect the R&D investment cost for developing the products with high energy efficiency and low-carbon products.
Dedicated budget for other emissions reduction activities	Equipment (Plasma Scrubber) for removing/reducing the process gas (F-Gas) is installed/operated to comply with the GHG quota by the government.
Employee engagement	Emission quota compliance rate (Compliance rate is related to the emission reduction activity) is established as the KPI, and year-end



	personnel evaluation is performed on the relevant employees based on the achievement of relevant KPI. The result of personnel evaluation is directly related to personal incentive and increase in rank.
Internal incentives/recognition programs	There is an internal incentive system on providing monetary reward when the emission reduction goal is achieved.

## C4.5

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

No

## C5. Emissions methodology

## C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?  $_{\mbox{\footnotesize No}}$ 

## 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?

## 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?
Row 1	No

## 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)

3,705,288

Comment

## Scope 2 (location-based)

## Base year start

January 1, 2018

## Base year end

December 31, 2018

## Base year emissions (metric tons CO2e)

4,459,985

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, 2018

## Base year end

December 31, 2018

## Base year emissions (metric tons CO2e)

331,825

Comment

## Scope 3 category 2: Capital goods



	Base year start
	Base year end
	Base year emissions (metric tons CO2e)
	Comment
Scc 2)	ope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or
	Base year start
	Base year end
	Base year emissions (metric tons CO2e)
	Comment
Sco	ope 3 category 4: Upstream transportation and distribution
	Base year start January 1, 2018
	Base year end December 31, 2018
	Base year emissions (metric tons CO2e) 3,137
	Comment
Sco	ope 3 category 5: Waste generated in operations
	Base year start
	Base year end
	Base year emissions (metric tons CO2e)



## Comment

Scope 3 category 6: Business travel
Base year start January 1, 2018
Base year end December 31, 2018
Base year emissions (metric tons CO2e) 4,601
Comment
Scope 3 category 7: Employee commuting
Base year start
Base year end
Base year emissions (metric tons CO2e)
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

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

55,625

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

Base year end

Base year emissions (metric tons CO2e)

Comment

## Scope 3 category 13: Downstream leased assets

Base year start



Base year end
Base year emissions (metric tons CO2e)
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.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006 ISO 14064-1

Korea GHG and Energy Target Management System Operating Guidelines

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## C6. Emissions data

## C<sub>6</sub>.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)** 

1,158,706

## Comment

Emission in Korea: 1,048,030 tco2 Emission in China/Vietnam: 110,677 tco2

## 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 are reporting a Scope 2, market-based figure

#### Comment

## C6.3

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

## Reporting year

## Scope 2, location-based

5.152.330

## Scope 2, market-based (if applicable)

4,355,495

#### Comment

Location based

Emission in Korea: 2,792,652 tco2

Emission in China/Vietnam: 2,359,677 tco2

Market based

Emission in Korea: 2,611,972 tco2

Emission in China/Vietnam: 1,743,524 tco2

## **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)**

248,454

## **Emissions calculation methodology**

Supplier-specific method



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

100

#### Please explain

(Common) Emission in Scope 3 was calculated by limiting to the business sites in Korea. Each supplier calculates the total GHG emission, and emissions are distributed proportionally to the ratio of products delivered to LGD, or the ratio of services provided. The main 1st supplier of LGD supplies 90% or more of products and services to LGD, and GHG emission of the relevant supplier is calculated by LGD, and this is calculated as the GHG emission of the products and services purchased 100% by LGD. Calculation Formula: Supplier Scope 1+2 GHG Emission (No. of Suppliers: Total of 38 Companies)

## **Capital goods**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

No emission from the capital goods purchased or owned.

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

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

GHG emission from the purchase of fuels is calculated by including the Scope 1 fixed combustion emission.

#### **Upstream transportation and distribution**

#### **Evaluation status**

Relevant, calculated

## **Emissions in reporting year (metric tons CO2e)**

2.487

## **Emissions calculation methodology**

Distance-based method

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

100

#### Please explain

- 1) Vehicle
- Estimate Methodology: Fuel Usage (L)  $\times$  Lower Heating Value (TJ/kL)  $\times$  GHG Emission Factor (tCO2e/TJ)  $\div$  1000
- Fuel Usage (L): Total Travel Distance (km) + Basic Fuel Efficiency (L/km)



- Lower Heating Value: Unique National Heating Value of Korea (Source: Korea Target Management System Guide)
- GHG Emission Factor IPCC Guideline for National GHG inventories (2006)
- 2) Train
- Estimate Methodology: Total Travel Distance (km) x GHG Emission Factor (tCO2e/km)
- GHG Emission Factor: GHG Emission per Train Travel Distance (Source: KEITI)
- 3) Aircraft
- Estimate Methodology: Total Flight Distance (km) x GHG Emission Factor (tCO2e/km)
- GHG Emission Factor: GHG Emission per Flight Distance (Source: EPA)

## Waste generated in operations

#### **Evaluation status**

Not relevant, explanation provided

## Please explain

Waste emission is calculated by including in the waste incineration Scope 1 and landfill emission.

#### **Business travel**

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

5,144

## **Emissions calculation methodology**

Distance-based method

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

100

## Please explain

- 1) Vehicle
- Estimate Methodology: Fuel Usage (L)  $\times$  Lower Heating Value (TJ/kL)  $\times$  GHG Emission Factor (tCO2e/TJ)  $\times$  Oxidation Rate (1.0)  $\div$  1000
- Fuel Usage (L): Total Travel Distance (km) ÷ Basic Fuel Efficiency (L/km)
- Lower Heating Value: Unique National Heating Value of Korea (Source: Korea Target Management System Guide)
- GHG Emission Factor IPCC Guideline for National GHG inventories (2006)
- Train
- Estimate Methodology: Total Travel Distance (km) x GHG Emission Factor (tCO2e/km)
- GHG Emission Factor: GHG Emission per Train Travel Distance (Source: KEITI)
- Aircraft
- Estimate Methodology: Total Flight Distance (km) x GHG Emission Factor (tCO2e/km)
- GHG Emission Factor: GHG Emission per Flight Distance (Source: EPA)

#### **Employee commuting**



#### **Evaluation status**

Not relevant, explanation provided

### Please explain

LGD is operating the commuter bus in all workplace areas for convenience of commuting by the employees. Emission of the commuter bus is calculated by including the Scope 1 mobile combustion emission.

## **Upstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided

## Please explain

Organizational boundaries are set through the operational control method, and all emissions of the leased workplaces are calculated by including in the Scope 1 emission.

## Downstream transportation and distribution

#### **Evaluation status**

Not relevant, explanation provided

## Please explain

Transportation cost of the products sold is paid by LGD, and calculated by including in the Scope 3 Category 4 (Upstream Transportation & Logistics).

#### **Processing of sold products**

#### **Evaluation status**

Relevant, calculated

## **Emissions in reporting year (metric tons CO2e)**

5,416

#### **Emissions calculation methodology**

Spend-based method

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

100

## Please explain

Goods are delivered to companies for processing as products, and emission factor per cost on the main customer of LG Electronics is calculated to calculate the GHG emission.

Estimate Methodology (Cost-based Calculation Method): Product Sales Cost (Sales amount relevant to the company providing delivery by LGD)\* Emission Factor per Cost 229,270,000,000\*656,495/27,791,745,552,000=5,416

- Product Sales Cost: As the sales amount sold to the main customer of LG Electronics,



#### KRW 229,270,000,000

- Emission Factor per Cost: GHG Emission of Main Customer/Total Sales Amount of Main Customer = 656,495tCO2e/KRW 27,791,745,552,000

## Use of sold products

#### **Evaluation status**

Not relevant, explanation provided

### Please explain

Goods sold by LGD are intermediate goods, and goods are considered to be used for production of the final material to be included in the Processing Category 10 of the goods sold.

## End of life treatment of sold products

#### **Evaluation status**

Not relevant, explanation provided

### Please explain

As the goods sold by LGD are not finished products, data cannot be provided.

#### **Downstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

There is no relevance as LGD has no leased assets.

#### **Franchises**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

There is no relevance as LGD does not perform franchise business.

## Investments

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

A company of the investment shares owned by LGD is the 1st supplier, and calculated by including in the Scope 3 Category 1 purchased with the goods and services.

#### Other (upstream)

#### **Evaluation status**

Not relevant, explanation provided



### Please explain

There is no other upstream.

## Other (downstream)

#### **Evaluation status**

Not relevant, explanation provided

## Please explain

There is no other downstream.

## **C6.7**

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

## C<sub>6</sub>.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**

0.24

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

6,311,036

#### **Metric denominator**

unit total revenue

Metric denominator: Unit total

26,151,781

## Scope 2 figure used

Location-based

% change from previous year

2.5

## **Direction of change**

Increased

## Reason(s) for change

Change in output Change in revenue



## Please explain

As the 2022 production (6,390K Glasses) compared to the 2021 production (8,124K Glasses), approximately 21% was reduced to also decrease with GHG emission by 10% in 2022 compared to 2021, but the sales amount was reduced by 12% to increase in unit emission by 2.5% compared to the previous year.

2021 Unit Emission (0.24tCO2/KRW 1 million)

- = 2021 GHG Emission (7,035,982tCO2)
- ÷2021 Sales Amount (KRW 29,878,043 million)

2022 Unit Emission (0.24tCO2/KRW 1 million)

- = 2022 GHG Emission (6,311,036tCO2)
- ÷2022 Sales Amount (KRW 26,151,781 million)

## 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	193,443	IPCC Second Assessment Report (SAR - 100 year)
CH4	1,396	IPCC Second Assessment Report (SAR - 100 year)
N2O	544,523	IPCC Second Assessment Report (SAR - 100 year)
HFCs	1,079	IPCC Second Assessment Report (SAR - 100 year)
PFCs	91,666	IPCC Second Assessment Report (SAR - 100 year)
SF6	326,599	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)
Viet Nam	10,208
China	100,469
Republic of Korea	1,048,030

## **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
Headquarter	672	37.52785	126.925332
P1/Mod	10,282	36.100272	128.404582
P456	222,692	36.096081	128.408396
P6E	32,296	36.095593	128.40436
Dongrakwon dormitory	669	36.112085	128.401603
Paju establishment	770,336	37.809532	126.770526
Paju waste treatment facility	10,409	37.81352	126.753775
Jeongdaun kindergarten	58	37.81031	126.75727
Gumi learning center	30	36.122399	128.38475
Paju learning center	83	37.809532	126.770526
China establishment facility	100,469	23.162118	113.485134
Viet Nam establishment facility	10,208	20.863264	106.565514
Magok Science park	477	37.5624	126.830363
Heesung electron	26	37.813586	126.755613

## **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)
Viet Nam	370,203	22,808
China	1,989,474	1,720,716
Republic of Korea	2,792,652	2,611,972



## **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)
Headquarter	1,366	1,366
P1/Mod	85,146	78,885
P456	476,140	448,602
P6E	95,221	95,221
Dongrakwon dormitory	856	856
Paju establishment	2,120,151	1,973,269
Paju waste treatment facility	2,193	2,193
Jeongdaun kindergarten	75	75
Gumi learning center	81	81
Paju learning center	587	587
China establishment facility	1,989,474	1,720,716
Viet Nam establishment facility	370,203	22,808
Magok Science park	10,634	10,634
Heesung electron	204	204

## **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.

previous year		<b>5</b>		B1 1 1 1 2
	Change in emissions	Direction of change	Emissions value	Please explain calculation
	(metric tons CO2e)	in emissions	(percentage)	
Change in renewable energy consumption	796,834	Decreased	11.3	In 2022, 1,096Gwh of renewable energy was purchased through Green Premium and REC, and 796,834 tCO2 of GHG was reduced through this purchase. The GHG emission in the previous year was 7,035,982tCO2.  Increase/Decrease Rate (-11.3%) = 796,834 (Reduction in CO2 emission due to transition to renewable energy in 2022)/7,035,982(2021 Carbon Emission)*100
Other emissions reduction activities	1,732,592	Decreased	24.6	1,524,020tCO2 of GHG was reduced through investment in process gas (F-gas) removal/reduction equipment (Plasma Scrubber), company-wide energy-saving activity was performed such as cold water manufacture and improvement of chiller efficiency by utilizing the waste heat of the CDA compressor to reduce the GHG by 208,572tCO2. The GHG emission in the previous year was 7,035,982tCO2. Increase/Decrease Rate (-24.6%) = 1,732,592(Reduction in Emission in 2022) /7,035,982(2021 Carbon Emission)*100
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in				



boundary		
Change in physical operating conditions		
Unidentified		
Other		

## 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	Yes
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)	HHV (higher heating value)	0	670,235	670,235
Consumption of purchased or acquired electricity		1,095,891	7,831,014	8,926,905
Consumption of purchased or acquired heat		0	6,391	6,391
Consumption of purchased or acquired steam		0	138,614	138,614
Consumption of self- generated non-fuel renewable energy		0		0
Total energy consumption		1,095,891	8,646,254	9,742,145

## 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	Yes
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
Total fuel MWh consumed by the organization
MWh fuel consumed for self-generation of electricity
MWh fuel consumed for self-generation of heat
MWh fuel consumed for self-generation of steam
Comment
Other biomass
Heating value
Total fuel MWh consumed by the organization
MWh fuel consumed for self-generation of electricity
MWh fuel consumed for self-generation of heat
MWh fuel consumed for self-generation of steam
Comment
Other renewable fuels (e.g. renewable hydrogen)
Heating value

Total fuel MWh consumed by the organization

Comment



		DISCLOSURE INSIGHT ACTION
	MWh fuel consumed for self-generation of electricity	
	MWh fuel consumed for self-generation of heat	
	MWh fuel consumed for self-generation of steam	
	Comment	
Coa	al	
	Heating value	
	Total fuel MWh consumed by the organization	
	MWh fuel consumed for self-generation of electricity	
	MWh fuel consumed for self-generation of heat	
	MWh fuel consumed for self-generation of steam	
	Comment	
Oil		
	Heating value	
	Total fuel MWh consumed by the organization	
	MWh fuel consumed for self-generation of electricity	
	MWh fuel consumed for self-generation of heat	
	MWh fuel consumed for self-generation of steam	



#### Gas

## **Heating value**

HHV

## Total fuel MWh consumed by the organization

580,834

## MWh fuel consumed for self-generation of electricity

n

## MWh fuel consumed for self-generation of heat

98,504

## MWh fuel consumed for self-generation of steam

482,330

## Comment

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

## **Heating value**

HHV

## Total fuel MWh consumed by the organization

89,401

## MWh fuel consumed for self-generation of electricity

126

## MWh fuel consumed for self-generation of heat

89,274

## MWh fuel consumed for self-generation of steam

0

## Comment

Vehicle fuel is included in the fuel consumed for heat production.

#### **Total fuel**

## **Heating value**

HHV

## Total fuel MWh consumed by the organization

670.235

## MWh fuel consumed for self-generation of electricity

126

## MWh fuel consumed for self-generation of heat



187,779

## MWh fuel consumed for self-generation of steam

482.330

#### 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	87	87	0	0
Heat	0	0	0	0
Steam	343,644	343,644	0	0
Cooling	0	0	0	0

## C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

## Country/area of low-carbon energy consumption

Republic of Korea

### Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

## **Energy carrier**

Electricity

## Low-carbon technology type

Renewable energy mix, please specify Solar, Wind, Hydro, Biomass energy

## Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

393,288

### Tracking instrument used

**REGO** 



## Country/area of origin (generation) of the low-carbon energy or energy attribute

Republic of Korea

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

No

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

Comment

## Country/area of low-carbon energy consumption

China

## Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

## **Energy carrier**

Electricity

### Low-carbon technology type

Renewable energy mix, please specify Solar, Wind energy

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

322,104

## **Tracking instrument used**

**GEC** 

Country/area of origin (generation) of the low-carbon energy or energy attribute

China

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

No

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

#### Comment



## Country/area of low-carbon energy consumption

Viet Nam

## Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

## **Energy carrier**

Electricity

## Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

380,499

## **Tracking instrument used**

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Viet Nam

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

No

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

## Comment

## 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)

5,685,492

Consumption of self-generated electricity (MWh)

79



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

107,028

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

273,926

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

6,066,525

## Country/area

China

Consumption of purchased electricity (MWh)

2,149,974

Consumption of self-generated electricity (MWh)

7

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

36,974

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

66,637

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

2,253,592

## Country/area

Viet Nam

Consumption of purchased electricity (MWh)

24,981

Consumption of self-generated electricity (MWh)

1

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

0

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

3,081

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

28,063



## C9. Additional metrics

## C9.1

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

## C10. Verification

## C<sub>10.1</sub>

## (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

2022\_Third\_Partys\_Verification\_Statement(Scope1\_CO\_corporation).pdf

2022\_Third\_Partys\_Verification\_Statement(Scope1\_CA\_corporation).pdf

2022\_Third\_Partys\_Verification\_Statement(Scope1\_Korea\_corporation).pdf

## Page/ section reference

2022 Third Partys Verification Statement(Scope1\_CA corporation) 1page

2022 Third Partys Verification Statement(Scope1\_CO corporation) 1page

2022 Third Partys Verification Statement(Scope1\_Korea corporation) 2page



## Relevant standard

ISO14064-3

## Proportion of reported emissions verified (%)

99

## 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

2022\_Third\_Partys\_Verification\_Statement(Scope2\_CO\_corporation).pdf
 2022\_Third\_Partys\_Verification\_Statement(Scope2\_Korea\_corporation).pdf
 2022\_Third\_Partys\_Verification\_Statement(Scope2\_CA\_corporation).pdf

### Page/ section reference

2022 Third Partys Verification Statement(Scope2\_CA corporation) 1page 2022 Third Partys Verification Statement(Scope2\_CO corporation) 1page 2022 Third Partys Verification Statement(Scope2\_Korea corporation) 2page

### Relevant standard

ISO14064-3

## Proportion of reported emissions verified (%)

85

## C10.1c

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



Scope 3: Purchased goods and services

Scope 3: Upstream transportation and distribution

Scope 3: Business travel

Scope 3: Processing 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

Verification\_Statement\_Scope3(2022).pdf

## Page/section reference

Verification Statement\_Scope3(2022) 1page

### Relevant standard

AA1000AS

## 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
C7. Emissions breakdown	Emissions reduction activities	AA1000AS	The LG Display ESG Report includes information on GHG Emission reduction activities, and was verified by a third party according to AA1000AS verification standards. (Verification agency: BSI Group Korea)



C8. Energy	Energy	AA1000AS	The LG Display ESG Report includes information
	consumption		on Energy consumption, and was verified by a
			third party according to AA1000AS verification
			standards. (Verification agency : BSI Group
			Korea)
			(l) 1

U ¹CDP\_Climate\_Change\_Questionnaire\_2023\_Respond\_Verification\_Statement.pdf

## 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

90

% of Scope 2 emissions covered by the ETS

54

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

4,985,656

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

1,048,030



### Verified Scope 2 emissions in metric tons CO2e

2,792,652

## **Details of ownership**

Facilities we own and operate

#### Comment

Only the Korean business sites of LG Display are currently subject to ETS (Emission Trading Scheme), and China/Vietnam business sites are not subject to ETS.

## C11.1d

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

1) LGD had corresponded to greenhouse gas reduction by being incorporated into te domestic greenhouse gas emission trading scheme, implemented as of 2015. LGD emission complied with the government quota as emitted less than the quota in the 1st (2015~2017) and 2nd (2018~2020) periods. The SF6 gas used in the process was replaced with Low-GWP gas in the 1st planning period, and a scrubber facility for decomposition of greenhouse gas was installed in the 2nd planning period. LGD greenhouse gas reduction strategy is to reduce energy consumption by continuous energy saving activity, reinforce direct use of new and renewable energy and indirect purchase through REC(Renewable Energy Certificate), and continuous investment in reduction facility for process greenhouse gas reduction is expected. as a specific example, a plasma scrubber (scrubber investment cost: KRW 6.6billion) for greenhouse gas reduction was installed at Paju plant in 2022. additionally, LGD is participating in the REC trade market, the government-implemented pilot project, and reviewing the purchase of new and renewable energy. We are internally working on various methods to raise the awareness of all employees by providing education to improve the expertise of energy-saving and online education on greenhouse gas(e-learning).

2) LGD have established a greenhouse gas emission target, as of 2018 (100% reduction by 2050, compared to 2018 emission) (ref. C4.1a).

[Reduction activities]

#### Mid-term

- 1. Reduction of process gases used by production equipment
- 2. Investment in reduction facilities for decomposing and removing process gases
- 3. Development and application of low-power production equipment and utility technologies
- 4. Strategic transition to new and renewable energy from thermal power generation and acceleration of the transition

### Long-term

- 1. Development and application of technologies for high-efficiency reduction of process gases (reduction efficiency of 95% or higher)
- 2. Development of substitute gases that are low-carbon and eco-friendly
- 3. Acceleration of transition to new and renewable energy
- 4. Continuous development of low-power, eco-friendly products



## 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?

Yes

## C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

## Type of internal carbon price

Implicit price

### How the price is determined

Social cost of carbon

## Objective(s) for implementing this internal carbon price

Drive low-carbon investment

### Scope(s) covered

Scope 1

Scope 2

### Pricing approach used – spatial variance

Uniform

## Pricing approach used - temporal variance

**Evolutionary** 

### Indicate how you expect the price to change over time

The internal carbon price (min.) is calculated through the previous GHG reduction equipment investment amount and reduction amount to be 21,671 Won/tCO2, and the internal carbon price (max.) was calculated as the average value of the 2022 KAU closing price of 23,889 Won/tCO2.

\* KRW 21,671 = KRW 50.86 billion (Reduction equipment investment amount in 2018~2022) ÷ 2.35 million tons (Reduction in 2022)

Internal carbon price can be changed according to the factory extension/closing, and change in production volume and KAU price, etc.

## Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

21,671



## Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

23,889

Business decision-making processes this internal carbon price is applied to Capital expenditure

## Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for all decision-making processes

## Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

Process gas (F-Gas) is used in the process of producing the panel, and investment was made on the equipment removing/reducing 90% of the total GHG emission. Internal carbon price becomes the important criteria for the reduction equipment investment and CER sales period, and 2.53 million tons of GHG was reduced in 2022 through investment in GHG reduction equipment. This is a main method for achieving the 2050 Net Zero Goal.

## C12. Engagement

## C12.1

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

Yes, our suppliers
Yes, our customers/clients

## 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

15.6

### % total procurement spend (direct and indirect)

15.6

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

95



### Rationale for the coverage of your engagement

LGD is requesting and verifying the information related to water on the CDP Water on 38 suppliers agreed with the "Carbon Partnership Certification" as part of the Green Shared Growth Support Project on suppliers among the total of 243 suppliers (2022 Standard) producing the equipment and raw materials, etc.

GHG emission, water usage and other environmental issues are diagnosed and certified during the "Carbon Partnership Certification", and therefore, only the 38 suppliers agreed with carbon partnership were selected.

## Impact of engagement, including measures of success

For active participation of the suppliers, LGD is agreed with Carbon Partnership on the suppliers to perform the certification, and certification audit is performed once a year (Certification audit items include establishment of annual energy goal and energy-saving target, etc.). When the certification audit is passed, separate additional point of 5 points are provided in the procurement process, and for the suppliers with poor cost competitiveness compared to the competitors, additional points from the Green SCM Consulting and Carbon Partnership can have impact on the assessment. On the contrary, additional points on purchase are not granted when the certification audit is not passed.

In 2022, certification was performed on 38 suppliers agreed with carbon partnership among domestic suppliers, and as a result, all 38 suppliers passed the certification audit. Government regulation and requirements on disclosure of carbon information by the domestic and overseas customers are applied to not only LG Display, but also to the suppliers of LG Display, and identification of risks related to climate change are also requested. As the weakening of the supplier competitiveness and capabilities can lead to decrease in competitiveness of LGD, Green Shared Growth Support Projects such as Green SCM Consulting and Carbon Partnership were performed also in 2022 as the win-win environmental activities for the suppliers. As a result, 8 suppliers (cumulative of 94 suppliers) were performed with Green SCM Consulting, and among them 38 suppliers agreed with Carbon Partnership to reinforce the environmental capabilities of the suppliers.

#### Comment

#### Type of engagement

Engagement & incentivization (changing supplier behavior)

#### **Details of engagement**

Run an engagement campaign to educate suppliers about climate change

#### % of suppliers by number

15.6

## % total procurement spend (direct and indirect)

15.6



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

## Rationale for the coverage of your engagement

LGD is requesting and verifying the information related to water on the CDP Water on 38 suppliers agreed with the "Carbon Partnership Certification" as part of the Green Shared Growth Support Project on suppliers among the total of 243 suppliers (2022 Standard) producing the equipment and raw materials, etc.

GHG emission, water usage and other environmental issues are diagnosed and certified during the "Carbon Partnership Certification", and therefore, only the 38 suppliers agreed with carbon partnership were selected.

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#### Comment

## C12.1b

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

Type of engagement & Details of engagement

Education/information sharing



Share information about your products and relevant certification schemes (i.e. Energy STAR)

### % of customers by number

100

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

21

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

Customers subject to engagement are all customers purchasing the products of LG Display.

Customers request the disclosure of environmental information such as status on acquisition of environmental certifications and GHG emission on the LGD products, etc., and LGD is providing the relevant data from request by the customers.

In addition, status of eco-friendly certifications for each LGD product group is disclosed through the official LG Display website and sustainability report.

## Impact of engagement, including measures of success

Customers purchasing the products of LG Display submit the information related to the GHG on the products to the US Environmental Protection Agency (EPA) (Type of GHG used, usage amount, reduction amount and calculation method, etc.), and US EPEAT Certification, etc. are acquired based on the GHG information provided by LGD.

## C12.2

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

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

## C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

## **Climate-related requirement**

Other, please specify
Calculation of Greenhouse Gas (GHG) Emission

## Description of this climate related requirement

For active participation by the suppliers, LGD concludes the Carbon Partnership with the suppliers to perform the certification, and certification audit (Certification audit items include establishment of annual energy goal and energy-saving target, etc.) is performed once a year.



% suppliers by procurement spend that have to comply with this climaterelated requirement

15.6

% suppliers by procurement spend in compliance with this climate-related requirement

15.6

Mechanisms for monitoring compliance with this climate-related requirement Certification

Response to supplier non-compliance with this climate-related requirement

Other, please specify

Additional points on purchase of 5 points are not granted when the Carbon Partnership Certification audit is not passed.

## 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

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

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)

ULGD\_TCFD\_Report\_2023.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

All items related to the environmental management strategy and energy/GHG including the engagement activity related to the climate change and company-wide response to climate change are reviewed through the ESG Environment Team in LG Display, and risk items are inspected. The ESG Environmental Team is involved actively in various policy briefing sessions, public hearings, and relevant demonstration projects, etc. to provide monthly or quarterly report to the CSO on the relevant engagement activities, and results are shared with the employees through the notice board / e-mail, etc.



Directions for minimizing the damages such as financial loss and adverse effect to the corporate image, etc., and relevant new business opportunities are set as the engagement activity goals, and when response is required, company-wide response strategies are established for response. The department responding to the climate change is establishing and implementing the GHG performance and reduction plan, and employees are applying the KPI related to achieving the company-wide energy-saving target as the performance indicator to induce the voluntary participation of the employees for maintaining the engagement activities consistent to the corporate strategy.

LGD suppliers are supported with consulting indirectly (overview of GHG, calculation of emission, and idea for reduction provided) through the annual Green SCM. In addition, performances compared to the supplier GHG emission target are managed through the Carbon Partnership, and energy-saving performances are also identified.

LGD is integrating the climate change related issues into the multi- disciplinary company-wide risk identification, assessment and management process for management,

and this is used to review and establish the mid-long term climate change strategy.

## 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

GHG ETS (Emission Trading Scheme)

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

Climate-related reporting Climate-related targets Emissions – CO2 Verification and audits

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 minor exceptions



### Description of engagement with policy makers

As the Greenhouse Gas (GHG) Emission Trading Scheme (ETS) is enforced, LG Display is participating in public hearings, meetings and win-win council, etc. as the company is subject to GHG ETS, and providing opinions actively. In addition, LGD is participating as the advisory committee member related to the laws on ETS.

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

LG Display is requesting the consideration of fairness in ETS between the businesses on calculating the potential reduction amount of GHG, and on the reduction rate. By analyzing the potential reduction amount for setting the National Post 2020 Reduction Goal, and by recommending industrial experts, etc., LG Display is partially supporting the laws and regulations by the government, and continuing the efforts to respond to the relevant laws and regulations. One example is as shown below.

Provision: According to Article 16, Paragraph 1, Subparagraph 1, when the emission is increased due to unexpected new construction and extension of facilities, the government verifies the emission from the new construction and extension (1 year after the operation) for additional allocation of emission to the relevant company Issue: Emission reduced by the company is applied to the performance emission, and 100 additional allocation from new construction and extension is not applied Details of Suggestion: In the additional allocation calculation criteria by the government, 100% additional allocation is recognized as limited to the pure new construction and extension facilities, and provisions on requiring mandatory reduction must be deleted.

## 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?

Since the Paris Agreement, the Korean Government announced the Green New Deal Policy in July, 2020, and 2050 Net Zero Goal was declared in October of the same year. To provide the mid-long term climate risk response system, the Korean Government established the "Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis', and CER Trading System has been enforced from 2015 for operation. From 2015, LG Display is allocated with the emission from the government according to the GHG ETS, and efforts are continued for reducing the GHG such as operating the GHG reduction equipment, and performing company-wide energy-saving activity for complying with the quota.

## C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.



### **Trade association**

Other, please specify

Korea Display Industry Association

Is your organization's position on climate change policy consistent with theirs?

Consistent

## Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

## Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Korea Display Industry Association (KDIA) represents the companies in the industry to participate in the industrial meetings and briefing sessions regarding the enforcement of Korean ETS. Various opinions were provided such as verification of the BAU and potential reduction amount on the 1st planning period (2015~2017), and requesting the consideration of fairness on the quota and reduction rate for each business type. In addition, energy efficiency regulation is partially supported to disclose the position and information of the Korean display industry.

In 2020, suggestions such as securing sufficient volume (REC, etc.) for enabling the companies to purchase the renewable energy, and supplying the rational price for minimizing the increase in power operating expenses were provided.

When the KDIA representing the Korean display industry is setting the position, LGD is providing the relevant information and data to support the basis and logic of the opinions of KDIA.

LGD continues to perform monitoring of the external policies, and developing new technologies in response to climate change, etc., and supporting the position of KDIA by providing the relevant information when KDIA states the position.

On the contrary, difficulties in the government regulations are suggested and proposed to KDIA, and there are other cases of performing activities in the perspective of KDIA subject to the government. In 2019, LG Display submitted opinions with KDIA on the change in calculation formula and on the error in statistical numbers to enable the display industry to become free allocation industry instead of paid allocation.

## Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

5,000,000

## Describe the aim of your organization's funding

Contributions are provided for operating the Environmental Safety Sub-committee under KDIA for joint response to the policies related to climate change (suggestions on policies related to improvement of regulations, etc.), and seminar is held to receive information on the global trend, etc.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?



Yes, we have evaluated, and it is aligned

## 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 mainstream reports

#### **Status**

Underway - previous year attached

### Attach the document

U [LG Display] Annual Report(2022).pdf

## Page/Section reference

Annual Report 2022 file 19page

#### **Content elements**

Strategy

**Emissions figures** 

**Emission targets** 

#### Comment

## 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	UN Global Compact	Since 2021, LG Display has been participating in the United Nations Global Compact (UNGC). The UNGC is the world's largest voluntary organization that internalizes the 10 principles in the fields of human rights, labor, environment, and anti-corruption into corporate operations and management strategies to encourage participation in improving sustainability and corporate citizenship, and to present practical measures for this purpose.  By participating in the UNGC, LG Display reviews the competitiveness of ESG management aligned with global standards



	and Shares know-how. LG Display aims to share and develop
	consensus on ESG management by actively participating in working-
	level consultative bodies and mentoring programs. In addition, we
	will participate in the Climate Ambition Accelerator (CAA) program to
	make relations with various companies and accelerate the transition
	to net zero.

## 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
Row	No, but we plan to have both within the next two years
1	

## 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
Row 1	No, and we do not plan to do so within the next 2 years

## 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

## **Dependencies on biodiversity**

Indicate whether your organization undertakes this type of assessment No, but we plan to within the next two years

## C15.4

(C15.4) Does your organization have activities located in or near to biodiversitysensitive 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?
R	low	No, we are not taking any actions to progress our biodiversity-related commitments, but we
1		plan to within the next two years

## 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	State and benefit indicators

## 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	Content	Attach the document and indicate where in the document the
type	elements	relevant biodiversity information is located

## 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	The CEO is the decision-maker of all tasks including the management	Chief Executive



1	of GHG emission in the company, reduction activities, and response to	Officer (CEO)
	CER regulations, etc.	

## SC. Supply chain module

## SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

## SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	26,151,781,000,000

## SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

**Requesting member** 

Acer Inc.

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

**Emissions in metric tonnes of CO2e** 

2,581

Uncertainty (±%)

0

**Major sources of emissions** 



## stationary combustion and process emissions

#### Verified

No

### Allocation method

Allocation based on another physical factor

## Market value or quantity of goods/services supplied to the requesting member 67,559

## Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

## Requesting member

Acer Inc.

## Scope of emissions

Scope 2

## Scope 2 accounting method

Location-based

## Scope 3 category(ies)

## **Allocation level**

Company wide

### Allocation level detail

## **Emissions in metric tonnes of CO2e**

11,475

## Uncertainty (±%)

0

### **Major sources of emissions**

externally supplied electricity /stem/heat

#### Verified

No



### Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member 67,559

Unit for market value or quantity of goods/services supplied Square meters

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

## Requesting member

Cisco Systems, Inc.

## Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

### Allocation level

Company wide

Allocation level detail

### **Emissions in metric tonnes of CO2e**

0

## **Uncertainty (±%)**

0

## **Major sources of emissions**

stationary combustion and process emissions

#### Verified

No

## **Allocation method**

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

0



## Unit for market value or quantity of goods/services supplied

Square meters

## Please explain how you have identified the GHG source, including major limitations to this process and

## assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

There is no products for Cisco System in 2022.

## Requesting member

Cisco Systems, Inc.

## Scope of emissions

Scope 2

## Scope 2 accounting method

Location-based

Scope 3 category(ies)

## **Allocation level**

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

0

## Uncertainty (±%)

0

## **Major sources of emissions**

externally supplied electricity /stem/heat

#### Verified

No

#### **Allocation method**

Allocation based on another physical factor

## Market value or quantity of goods/services supplied to the requesting member

0

## Unit for market value or quantity of goods/services supplied

Square meters



# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

There is no products for Cisco System in 2022.

## Requesting member

**Dell Technologies** 

## Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

## **Allocation level**

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

98,793

## Uncertainty (±%)

0

### **Major sources of emissions**

stationary combustion and process emissions

## Verified

No

#### **Allocation method**

Allocation based on another physical factor

## Market value or quantity of goods/services supplied to the requesting member 2,586,378

## Unit for market value or quantity of goods/services supplied

Square meters

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made



GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

**Dell Technologies** 

# Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

Scope 3 category(ies)

# **Allocation level**

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

439,296

# Uncertainty (±%)

0

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 2,586,378

Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

## assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.



# Requesting member

Faurecia

# Scope of emissions

Scope 1

# Scope 2 accounting method

# Scope 3 category(ies)

#### Allocation level

Company wide

#### Allocation level detail

# **Emissions in metric tonnes of CO2e**

257

# **Uncertainty (±%)**

0

# **Major sources of emissions**

stationary combustion and process emissions

# Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 6,733

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

## assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Faurecia

# Scope of emissions

Scope 2



# Scope 2 accounting method

Location-based

Scope 3 category(ies)

#### Allocation level

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

1,144

# **Uncertainty (±%)**

0

# **Major sources of emissions**

externally supplied electricity /stem/heat

#### Verified

No

#### Allocation method

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 6,733

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

HP Inc

# Scope of emissions

Scope 1

# Scope 2 accounting method

Scope 3 category(ies)



## Allocation level

Company wide

#### Allocation level detail

#### **Emissions in metric tonnes of CO2e**

25,048

## **Uncertainty (±%)**

0

# Major sources of emissions

stationary combustion and process emissions

#### Verified

Nο

## Allocation method

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 655,748

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

# assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

HP Inc

# Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

# Scope 3 category(ies)

# **Allocation level**

Company wide



111,379

Uncertainty (±%)

0

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No

#### Allocation method

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 655,748

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Lenovo Group Limited

## Scope of emissions

Scope 1

# Scope 2 accounting method

Scope 3 category(ies)

# **Allocation level**

Company wide

Allocation level detail

# **Emissions in metric tonnes of CO2e**

15,416

# Uncertainty (±%)

0



# Major sources of emissions

stationary combustion and process emissions

#### Verified

No

#### Allocation method

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 403,597

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

# assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Lenovo Group Limited

# Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

## Scope 3 category(ies)

# **Allocation level**

Company wide

#### Allocation level detail

# **Emissions in metric tonnes of CO2e**

68,551

# Uncertainty (±%)

n

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No



## Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member 403,597

Unit for market value or quantity of goods/services supplied Square meters

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Microsoft Corporation

# Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

# Allocation level

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

6,164

# **Uncertainty (±%)**

0

# **Major sources of emissions**

stationary combustion and process emissions

#### Verified

No

# **Allocation method**

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member 161,372



# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

# assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Microsoft Corporation

# Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

Scope 3 category(ies)

# **Allocation level**

Company wide

Allocation level detail

# **Emissions in metric tonnes of CO2e**

27,409

# **Uncertainty (±%)**

0

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 161,372

# Unit for market value or quantity of goods/services supplied

Square meters



# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Robert Bosch GmbH

# Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

#### Allocation level

Company wide

Allocation level detail

# **Emissions in metric tonnes of CO2e**

2,397

# Uncertainty (±%)

0

# Major sources of emissions

stationary combustion and process emissions

## Verified

No

#### **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 62,743

# Unit for market value or quantity of goods/services supplied

Square meters

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made



GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Robert Bosch GmbH

# Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

Scope 3 category(ies)

# **Allocation level**

Company wide

Allocation level detail

## **Emissions in metric tonnes of CO2e**

10,657

# Uncertainty (±%)

0

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 62,743

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

## assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.



# Requesting member

Visteon

# Scope of emissions

Scope 1

# Scope 2 accounting method

# Scope 3 category(ies)

#### Allocation level

Company wide

#### Allocation level detail

## **Emissions in metric tonnes of CO2e**

86

# **Uncertainty (±%)**

0

# **Major sources of emissions**

stationary combustion and process emissions

# Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 2,259

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

## assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Visteon

# Scope of emissions

Scope 2



# Scope 2 accounting method

Location-based

Scope 3 category(ies)

#### Allocation level

Company wide

Allocation level detail

#### **Emissions in metric tonnes of CO2e**

384

**Uncertainty (±%)** 

0

# **Major sources of emissions**

externally supplied electricity /stem/heat

#### Verified

No

#### Allocation method

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 2,259

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# **Requesting member**

Samsung Electronics

# Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)



## **Allocation level**

Facility

## Allocation level detail

Korean production facility, China production facility(CA)

#### **Emissions in metric tonnes of CO2e**

206,002

## **Uncertainty (±%)**

0

# Major sources of emissions

stationary combustion and process emissions

## Verified

Nο

#### **Allocation method**

Allocation based on the market value of products purchased

# Market value or quantity of goods/services supplied to the requesting member 394,500,000,000

# Unit for market value or quantity of goods/services supplied

Currency

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Samsung Electronics

## Scope of emissions

Scope 2

# Scope 2 accounting method

Location-based

# Scope 3 category(ies)

# **Allocation level**

Facility

## Allocation level detail

Korean production facility, China production facility(CA)



590,062

# Uncertainty (±%)

0

# Major sources of emissions

externally supplied electricity /stem/heat

#### Verified

No

#### **Allocation method**

Allocation based on the market value of products purchased

# Market value or quantity of goods/services supplied to the requesting member 394,500,000,000

# Unit for market value or quantity of goods/services supplied

Currency

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Acer Inc.

## Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

# **Allocation level**

Company wide

## Allocation level detail

# **Emissions in metric tonnes of CO2e**



582

# **Uncertainty (±%)**

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

#### **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 67 559

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Cisco Systems, Inc.

# Scope of emissions

Scope 3

## Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide

#### Allocation level detail

# **Emissions in metric tonnes of CO2e**

0



# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

#### **Allocation method**

Allocation based on the market value of products purchased

# Market value or quantity of goods/services supplied to the requesting member

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and

# assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

There is no products for Cisco System in 2022.

# Requesting member

**Dell Technologies** 

# Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

# **Allocation level**

Company wide



22,296

# **Uncertainty (±%)**

n

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

## **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 2,586,378

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Faurecia

# Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide



58

# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

## **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 6,733

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

HP Inc

## Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide



5,653

# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 655,748

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Lenovo Group Limited

# Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide



3,479

# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

## **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 403,597

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Microsoft Corporation

# Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide



1,391

# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

## Verified

No

# **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 161,372

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Robert Bosch GmbH

## Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

## **Allocation level**

Company wide



541

# Uncertainty (±%)

0

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

#### Verified

No

## **Allocation method**

Allocation based on another physical factor

# Market value or quantity of goods/services supplied to the requesting member 62,743

# Unit for market value or quantity of goods/services supplied

Square meters

# Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# Requesting member

Visteon

# Scope of emissions

Scope 3

# Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 4: Upstream transportation and distribution

Category 6: Business travel

Category 10: Processing of sold products

#### **Allocation level**

Company wide



19

# Uncertainty (±%)

n

# Major sources of emissions

Purchased goods and services, Upstream transportation and distribution, Business travel, Processing of sold products

#### Verified

No

## **Allocation method**

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member 2,259

Unit for market value or quantity of goods/services supplied Square meters

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

GHG emissions are calculated by area ratio of supplied products to GHG emissions from all company site.

# SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

# SC1.3

# (SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	-

# **SC1.4**

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes



# SC1.4a

# (SC1.4a) Describe how you plan to develop your capabilities.

We plan to develop a logic for calculating GHG emissions by product group in the future.

# SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

# SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

# SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

# 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