Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

(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 2021 is KRW 29,878,043 million.

Major technologies are OLED, IPS, M+, and In-touch. Globally, 8 production corporations, 8 sales corporations and 9 sales branches are on operation. LG Display has set the goal for the reduction of absolute carbon emissions at 40% by 2030 and 90% by 2050 from the base year 2014 and is making every effort 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 low-carbon clean production technologies for process greenhouse gas emission Zero in the mid- to 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

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2021	December 31, 2021	No

C0.3

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

China
Republic of Korea
Viet Nam

C0.4

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

KRW

C0.5

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

Operational control

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	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 individual(s)	Please explain
Chief Executive Officer (CEO)	The company has established the ESG Committee as the highest decision-making organisation on climate change and is currently providing review and supervision in overall operation and direction-setting in ESG including climate change.

	1. Role and Level of Responsibility: The CEO is one of the ESG Committee members and serves the role of approving basic policies and strategies for ESG management and mid- to long-term ESG goals and reviewing and making decisions on reported matters related to planning and performance of ESG management activities as well as critical risks and responses. 2. Governance Position: The management of LG Display is continuously reviewing risks and opportunities related to climate change. In the process, the CEO provides overall supervision in setting mid- to long-term greenhouse gas reduction goals and plans for carbon neutrality as well as making investments and raising capital for dealing with climate change issues, investment in greenhouse gas reduction, trading of emission rights and transition to renewable energy. The ESG Committee reviews the reported decisions and requirements related to climate change and reflects the approved matters in corporate business planning and policy making. 3. Decisions on Climate Change: The first ESG Committee was held in October 2021, where it approved the company's official ESG management performance (renewable energy purchase through Korea's Green Premium program, green bond issuance, etc.) and other matters. Also, it presented a report on the current status of the nine key areas of ESG (including climate change)

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 – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	The company has estblished the ESG Committee as the highest decision-making organisation on climate change and is currently providing review and supervision in overall operation and direction-setting in ESG including climate change. The main items on the climate change agenda include strategies for carbon neutrality (net zero), risk management review, key investments and trading, and greenhouse emission performance. The first ESG Committee was held in October 2021 where it approved the company's official ESG management performance (renewable energy purchase through Korea's Green Premium program, green bond issuance, etc.) and other matters. Also, it presented a report on the current status of the nine key areas of ESG (including climate change). Moreover, the committee holds management meetings to discuss LG Display's climate change mitigation strategies and

	Monitoring and overseeing progress against goals and targets for addressing climate-related issues	share reports on the current year's performance in carbon emission reduction and emission amount (reflected in the quarterly report)

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	Members of the ESG Committee with various experiences in ESG (greenhouse, environment, etc.) have been appointed as operating members of the Korea Commission for Corporate Partnership and Committee for ESG Support Project for Partners and as co-chairman of the ESG Management Committee. Since climate change is a key priority in ESG, the members are equipped with expertise in climate change. Furthermore, one of the ESG Committee members have specialised in environmental laws, he is currently vice president of korean environment law association. so providing expertise in climate change risks to the committee.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

1. Role and Level of Responsibility: The CEO is one of the ESG Committee members and serves the role of approving basic policies and strategies for ESG management and mid- to long-term ESG goals and reviewing and making decisions on reported matters related to

planning and performance of ESG management activities as well as critical risks and responses.
2. Governance Position: The management of LG Display is continuously reviewing risks and opportunities related to climate change. In the process, the CEO provides overall supervision in setting mid- to long-term greenhouse gas reduction goals and plans for carbon neutrality as well as making investments and raising capital for dealing with climate change issues, investment in greenhouse gas reduction, trading of emission rights and transition to renewable energy. The ESG Committee reviews the reported decisions and requirements related to climate change and reflects the approved matters in corporate business planning and policy making.
LG Display has established a risk management system for managing non-financial areas that may influence corporate management, including environment/safety and product quality. Since establishing the compliance operation system in 2009, LG Display has conducted assessment of major environmental risks (atmospheric emission facilities, total carbon emissions, air quality, greenhouse gas, etc.) once every first half and assessment of environmental risks for ISO14001 compliance once every second half and has continuously carried out monitoring. Climate change indexes include scope 1/scope 2/scope 3 emissions, energy use level and new and renewable energy transition level as well as greenhouse gas reduction rate. Among these, LG Display has set greenhouse gas reduction rate as the main climate change index and has assessed achievement of the yearly reduction goal and monitored the climate change issues based on the index.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	LG Display evaluates achievement after considering mid- to long-term management plans and targets to select compensation for management. Compensation to the Board of Directors based on the evaluation results will be compensated within the amount approved by the general shareholders' meeting.

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	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	LG Display evaluates achievement after considering mid- to long-term management plans and targets to select compensation for management. Compensation to the Board of Directors based on the evaluation results will be

			compensated within the amount approved by the general shareholders' meeting. This management plan includes various sectors, including reduction of greenhouse gas emissions, early achievement of water recycled rate, and zero environmental penalty surcharge/ fine. performance: Reduction of 1,708,567tCO2 Greenhouse Gas (21year)

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	15	
Long-term	15	25	

C2.1b

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

1. Definitions of the significant financial impact on the business when identifying the risk of climate change

A significant financial impact means an impact above a certain level (over 100 million won) that can affect LGD's business (production or sales) due to Climate change risk. Climate change must comply with various regulations (emission trading scheme, EPEAT certification, etc.), and non-compliance with regulations may lead to reduce in sales. The estimated amount is to be the proportion of overseas sales in 2021, 29,280,482 million days (98%) * (KRW 29,878,043 million) when EPEAT overseas standards are not complied with. The proportion of oversea export is over 90% in LGD, and non-compliance with overseas standards will result a significant impact on sales. The financial impact of climate change is within the company level, therefore it is always included and managed in the risk facors. The sales revenue has a risk factor, therefore review and guidance on strategies on the climate change issues are reported to the Board of Directors and decisions are made. As an example, in order to comply with overseas standards (EPEAT) as a climate change strategy in 2019, about KRW 9.3 billion is

decided to invest in reduction facility for reducing F-gas, using in dry-etching equipment at Paju plant, LG Display. In addition, KRW 5.3 billion investment is decided to comply with emission trading scheme(ETS) in 2021.
2. Definition of risk/opportunity;
Climate change risks that have a significant impact on business, management, sales and costs are assessed and prioritised. The same goes for opportunities. Definitions of risks and opportunities have been cited in the severity assessment process. The significant impact is over the certain level of financial value (over KRW 100 million) that can affect LGD business (production or sales) due to the climate change risks.
[Measure(s), Measurement Metric(s), Indicator(s)] used to define significant influences.
The measurement methods used to define significant effects are Stakeholders concern and business impact.
Social interest defines the degree of human damage and the degree of external image impact as quantitative indicators, and business impact defines financial loss, and the management committee manages the indicators. LGD quantifies risk factors through assessment of corporate risk occurrence and impact, and prioritize through rating importance. The possibility of occurrence is evaluated through the possibility of frequency assessment, and the impact is evaluated in terms of how it affects the counterstrategy to the climate change on 4 factors, (1) financial loss, (2) human damage, (3) corporate image, (4) legal sanctions/disputes. The climate change opportunities are primarily prioritized through evaluating the impact on the company. Opportunity impacts are determined and evaluated the opportunistic factors caused by climate change on 3 factors (1) financial benefits, (2) corporate image enhancement, (3) minimization legal sanctions/disputes.

C2.2

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

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

1. Integration into company-level risk identification, assessment and management processes
LG Display is preemptively managing risks through the detection of internal and external

risk factors and prompt responses. The company performs company-wide analysis of risks related to the business environment such as uncertainty, opportunity loss, casualties and work suspension, selects key risks based on occurrence potential and impact level and establishes a system for their prevention and management.
The risk management process proceeds in four steps, namely identification of risk factors, response, recovery and prevention.
We developed a management manual for proper response to different emergency situations. LG Display has established a risk management system for non-financial management sectors such as personnel/labor, intellectual property rights, environment/safety, and product quality that affecting company management. Since 2009, the Compliance Team conducts identification and assessment of climate change risks based on the Risk Checklist & Self Assessment Sheet as well as company-wide assessment and analysis of risks and opportunities associated with climate change as part of the environmental organisation analysis during the ISO14001 compliance stage. Matters subject to risk analysis are reviewed for at least six years, and the identified risks are assessed for risk management.

The major climate change risks are transition risk and physical risk. Transition risk has legal regulation, market, and reputational risks and is always monitored because the financial impact on the company due to the negative climate change impact is significant. Physical risk has production and sales impact because it is mainly due to investment in the old facilities and repair of the business sites.

2. Cases of applying risk and opportunity to the process;
Transition risk:
Situation: LG Display has been subject to Korea's Emissions Trading Scheme since 2015 and is obligated to make purchases from the emissions trading market for any emissions exceeding the government-imposed quota and, if unable to make such a purchase, has to pay a fine equivalent to three times the market price of emissions.
Task: In order to reduce the amount of process gases used, the company has to make investments in emission reduction facilities with 90% efficiency in process gas removal and maintain the infrastructure to ensure their proper operation.
Action: 'In 2021, LG Display invested 5.28 billion won in plasma scrubbers and installed the reduction facilities in the Paju Plant, which have since been in operation.
Result: The investment in emission reduction facilities has resulted in the reduction of 1.7 million tons in emissions, keeping the emission level under the government-imposed quota and removing the need to purchase emission rights.

Physical risk:
Situation: Water shortage caused by climate change has made LG Display's lack of available water infrastructure a problem in production. (Inability to operate a plant that produces 30,000 panels a month brought a decrease in sales.)
Task: LG Display has to build the water supply infrastructure for properly running the plants.
Action: LG Display has signed a contract where private companies are to invest a total of 65.1 billion won in building sewage reuse facilities for LG Display in return for which LG Display is to supply 40,000 tons per day.

Result: This will ensure enough amounts of daily water for the plants to continue the production

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	In order to comply with the legal obligation to report annual emission according to the emission trading scheme, LG Display proceed investment in the process gas alteration and reduction for observing the 3rd-party verification cost and emission against the government quota. In addition, investment in installing/operating greenhouse emission reduction facilities has to be proceeded as demand on Eco-friendly Mark certification, for instance, EPEAT(Electronic Product Environmental Assessment Tool) for electronic products in the U.S.A and Nordic Swan Eco-label in the E.U and other advanced countries had risen. This transition risk is included and concerned in the worst case of scenario where transaction will be cancelled when standard criteria does not fulfilled.
Emerging regulation	Relevant, always included	As per the Paris agreement, the Korean government mainly apply the greenhouse gas emission trading scheme as a major means of reducing greenhouse gas to achieve net zero in 2050. LGD is involved in the emission trading scheme, however is assertively reviewing investment for process gas replacement as a strategy to reduce emission in a long-term perspective by 2050, as well as investment to decompose greenhouse gas by installing reduction facilities.(Installation has completed in some part of plants) In addition, the company is reviewing the option of new and renewable energy transition (direct purchase or indirect REC purchase) in order to achieve carbon neutrality (net zero). For this, the amount needed to purchase new and renewable energy may gradually increase. For this purpose, LG Display is always monitoring government announcements of new and renewable energy policies (participation in REC pilot project, bidding in green premium auction, etc.) Since the government's new and renewable energy restrictions as a means to reduce indirect emissions (CO2 emissions due to power production) entail financial consequences, they should always be taken into consideration in risk assessment and planning.
Technology	Relevant, always included	As the demand for eco-friendly products and low-carbon products increases, products that do not meet these standards are less in demand, which leads to a decrease in sales. Companies must focus on developing related products to meet customer needs. This is also affecting LG Display, and R&D investment is underway to secure a

		market advantage by developing products tailored to the trends. Technology is a key determinant of the product and should always be included in the risk assessment. LG Display is on the future prediction of expanding R&D investment for products development, and the portion of R&D investment was above 5% compare to the total revenue from 2014.
Legal	Not relevant, explanation provided	There are no ongoing lawsuits related to climate change as LG Display is responding to them preemptively, since legal sanctions and lawsuits determine the seriousness of LG Display's climate change.
Market	Relevant, always included	As the global market environment grows rapidly, LG Display has to enter new markets with green marketing. Environmental issues (climate change) are factors in creating a new market area. As the technology gap between enterprises disappears, companies cannot survive through cost competition. They are required to identify and respond to customers' needs preemptively with more distinctive product differentiation. Recently, customers and consumers are increasingly aware of green energy production as well as purchasing eco friendly products. Failure to meet market trends of green consumption that emphasizes the environmental performance of products will cause the value to fall in the market, which is directly linked to sales. There is a risk. Enterprises need to focus on green products development for satisfying the customer’s needs. This also affects LG Display and we are on R&D investment meeting the global trendy for ensuring market prioritize. LG Display is on the future prediction of expanding R&D investment for products development, and the portion of R&D investment was above 5% compare to the total revenue from 2014. The future R&D investment will be constantly expanded. LG Display always includes the values of consumers/customers that reflect market demand in the risk assessment and evaluates them. As per the recent rapid growth of renewable energy with the emergence of the new climate scheme, and the market trend to expand the proportion of renewable energy in accordance with making net zero achievement by 2050, LGD is responding to market demand to maintain its eco-friendly image. Therefore the relevant assessment items are included in to satisfy the market demand.
Reputation	Relevant, always included	Financial institutions and investors use the results of evaluations by evaluation agencies involved in sustainability and climate change, such as CDP and DJSI, as investment determinants. Failure to respond appropriately to corporate social responsibility for climate change could negatively affect the corporate image, resulting in investment value decline, etc. The brand value of a company is a factor affecting the maintenance of the company as well as the sales in the long term. Black Rock, overseas shareholder of LGD, has emphasized ESG and is demanding to reinforce and monitor climate change response in the Stewardship Code Guidelines. Investment may become increasingly

		difficult if climate change response is not satisfied. If LG Electronics as LGD's largest shareholder disinvest in LGD, we may face with a financial blow the amount KRW 2,034,375,000,000(Shares owned by LGE: 135,625,000 as of 2021, LG Display stock price: 15,000won, 15,000*135,625,000=1,980,125,000,000). A company's brand value is an essential factor that affects not only sales but also the survival of the company in the long term, and a decline in brand value could significantly affect the economic aspects of the company. Decline in sales by 10% due to decline in demand may lead to a decline in sales revenue by 2.9trillion (based on 2021sales). Therefore concerning the risk management is the mandatory for preventing enormous loss from climate change.
Acute physical	Relevant, sometimes included	The water supply by changes of annual precipitation from drought can influence productivity, and this is intimately related to LG Display's production and sales, and financial loss will be according to the reasons and the scale of damage.. It is anticipated that the amount of damage will be between 1 billion and 10 billion per hour depending on the cause or scale of the damage. LGD is conducting investment in water supply for prior action for preventing such a damage. As an example, we had invested about KRW 20 billion with a private company for stable supply of sewage recycled water to P10 plant in Paju. Therefore, risk management is periodically evaluated for short-term changes in the physical environment.
Chronic physical	Relevant, always included	Changes in the average temperature due to climate change result in increased electricity use in other facilities, such as cleanrooms and freezers. The increase in energy consumption can lead to additional loads on the facilities, and the steady increase in electricity costs due to the increase of usage add a financial burden on LG Display due to the increase in operating expenses. In the case of LG Display, energy costs is about 68% of the total management cost, so there is a continuing investment risk for energy saving.

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 adoption of the Paris Agreement as a new climate change regime on December 12, 2015, each country set Intended Nationally Determined Contributions, submit the reduction goals every 5 years, and report its national greenhouse gas inventory, reductions, achievements, etc. The performances are reviewed every 5 years. Therefore, the Korean government submitted a voluntary greenhouse gas reduction goal to COP21 to reduce emissions by 40% compared to the estimated emissions in 2030,

and introduced the emissions trading scheme from 2015. The restrictions imposed by the Emissions Trading Scheme on LG Display are only applicable in Korea. LG Display's domestic sites (Paju/Gumi) are obligated to annually submit the greenhouse emission level and report reduction performance in some cases. For the company to meet the government-imposed quota, its operating costs including investments for reduction, fines for noncompliance with the restrictions and emission rights purchase costs are increasing. Due to the nature of LG Display's industry, the company uses fluorine gas (F-Gas) in the process of producing panels. LG Display installed process gas reduction facilities (plasma scrubbers) capable of removing more than 90% of the F-Gas in the Paju and Gumi sites as per the requirements by the Emissions Trading Scheme (Korea ETS) and client companies. Each year, costs continue to increase for measuring the efficiency of the emission reduction facilities to meet the government expectations for greenhouse gas reduction as well as for operating the facilities (spare parts purchases, equipment operation costs, etc.)

Also, by acquiring eco-friendly certifications such as Energy Star, EPEAT and Carbon Footprint as a marketing strategy to create sales in the EU and the USA, client companies of LG Display, who manufacture set products such as TVs, laptops, etc., will increase development costs to meet energy efficiency standards.

Also, investments in greenhouse gas reduction facilities are also being expanded to satisfy the EPEAT standards, adding to the increasing costs.

Time horizon

Medium-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)

29,315,792,277,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The Korean government is expected to reduce its voluntary greenhouse gas reduction target by 40% compared to the predicted 2030 emissions, and LG Display is expected to reduce 3,259,409 tons CO2 by 2030 compared to 2014. This is estimated at KRW 51,915,580,000, when converted into a sum (average unit price per ton: KRW 20,000)
Making no investment in greenhouse gas reduction facilities or in any reduction activities will incur close to 65,188,180,000 of purchase costs for greenhouse gas emission rights.
3,259,409(required reduction by 2030)*20,000(average unit price per ton)=65,188,180,000
If LG Display is unable to comply with overseas regulations on the energy efficiency of electronic products such as Energy star, EPEAT, etc.
for the client companies manufacturing set products such as TVs and laptops with LG Display's panels as parts and selling in the EU and the USA, it may affect the export and sales of LG Display and lead to a decrease in sales. LGD has 97.9% of revenue from export sales (29,878,043,000,000). The worst-case of risk a sales decrease of up to 29,250,604,097,000.
29,315,792,277,000= 29,250,604,097,000+65,188,180,000

Cost of response to risk

7,620,000,000

Description of response and explanation of cost calculation

In order to cope with emission trading and international greenhouse gas regulations, we analyze domestic and overseas trends and submit the results of the annual greenhouse gas emissions and reductions after verification by the verification agency. (Verification cost in 2021: KRW 150 million)
To respond to the Emissions Trading Scheme and meet the international standards, LG Display invested 5.28 billion in 2021 to install process gas reduction facilities (plasma scrubbers) and spent 0.2billion in measuring the gas removal efficiency of the facilities. Also, the company acquired the ISO40001 certification for energy management and is continuing a systematic environmental management. (The company is annually having the certification validated, and the cost of validation in 2021 was 53 million) In addition, the company has the policy of rewarding good energy reduction ideas from the employees through idea contests with the aim to facilitate the reduction activities. LG Display provides greenhouse gas energy education for all executives and employees throughout the country by making use of the self-developed e-learning programs on greenhouse gas energy reduction, raising the awareness of the grave climate change situation as well as the need for greenhouse gas and energy reduction.

LGD has set a department to make reduction throughout the company on electricity consumption, the portion of over 60% of greenhouse gas emissions. We have set a goal of 0.59 billion kwh and achieved 0.44 billion kwh saving in 2021. KRW 1.9 billion is expended for energy saving cost.

Comment

1) Expenses incurred in verifying the amount of greenhouse gas emissions and the results of reduction: (0.16billion)
2) Investment cost in technology for reducing process gas: (5.3billion)
3)Expenses incurred in obtaining ISO certification: KRW (0.06billion)
4) Energy saving cost : KRW (1.9billion)
5)Reduction efficiency measurement cost: (0.2billion)

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

Technology: Research and development (R&D) expenditures in new and alternative technologies

Company-specific description

As the customer's demand for eco-friendly products and low-carbon products increases, when the products do not satisfy the trend have decreased demand and it connects to sales decrease. Companies must focus on developing products to meet with new customer needs. This is also affecting LG Display, and R&D investment is underway to secure a market advantage by developing products tailored to the trends. LG Display is facing increasing demands for eco-friendliness in its products from its client companies, especially in the United States where more and more companies are demanding products that meet the EPEAT standards for greenhouse gas reduction.

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)

1,493,902,150,000

Potential financial impact figure – maximum (currency)

2,987,804,300,000

Explanation of financial impact figure

As the demand for eco-friendly products and low-carbon products increases, products that do not meet them see reduced demand, which leads to a decrease in sales. Therefore, it is expected that the cost of R&D investment in product development that understands customer needs and satisfies them will increase. Since 2014, R&D spending as a percentage of sales has exceeded 5% each year. R&D investment costs are expected to increase gradually in the future.
Indeed, it has been growing steadily since 2017, but has never exceeded 10% (7.6% in 2019, 7.2% in 2020, 7.1% in 2021). Therefore 5% in sales revenue as the minimum, and 10% as the maximum is computed.

minimum: 1,493,902,150,000=5%*29,878,043,000,000(2021 year sales)
maximum: 2,987,804,300,000=10%*29,878,043,000,000won(2021 year sales)

Cost of response to risk

2,127,735,000,000

Description of response and explanation of cost calculation

LG Display is striving to develop eco-friendly products in order to meet customers' needs in line with trends and to become an ecofriendly company. As the demand for eco-friendly products and low-carbon products increases, when the products do not satisfy the condition have decreased demand and it connects to sales decrease Therefore, LG Display is striving to develop eco-friendly products in order to meet customers' demands for eco-friendly products and to become an eco-friendly company. After the development of the M+ technology equipped with high resolution, low energy consumption and outdoor visibility, the photo orientation using UV, and the N-type liquid crystal, it has evolved a step forward towards an eco-friendly display by implementing the low energy consumption and high resolution with LCD products through IPS nano color technology. Raw material savings and eco-friendly product development are also continuing.
LRR technology adopted low-power consumption notebook Oxide 13.9 "UHD had developed in 2019 as research developed performance. KRW 2.1trillion is invested to conduct 3 R&D in 2020, and is resulted in the 1st product development (77" UHD, 48" UHD) at the Guangzhou panel factory.
In 2021, we acquired green technology certification for touch display technology (AIT: Advanced In-cell Touch) with touch sensing electrodes and transmission lines placed inside. This certification is a system that evaluates and certifies the value and effectiveness of technologies that use energy and resources efficiently to minimize the

emission of greenhouse gases and pollutants. LG Display's AIT technology has been certified as green technology that reduces carbon emissions and the use of rare metals by reducing power consumption and the use of parts in the process.
In addition, along with the TUV SUD certification body, we developed an eco-friendly certification program in terms of resource circulation excellence consisting of satisfying WEEE regulations, recycling resources, and the disuse of specific hazardous substances. Based on this, we acquired certifications for OLED TV and PO Mobile models
The company spent 30 million won in acquiring certifications in 2021 including the green technology certification, TUV certification and SGS certification.

Comment

1) R&D Investment: 2,127,705,000,000
2) certification acqusition cost : 30,000,000

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 customers and consumers are increasingly demanding eco-friendly products, not only the purchase of eco-friendly products but also the awareness of green energy production is increasing. Failure of satisfying the market trend with green consumption will depress market control power and it will cause the result of falling behind of market trend and it will give direct affect to sales directly.
The demand from the customers to convert 100% of the electronic power that is used in LGD products into renewable energy sources in on increase. The introduction of renewable energy is included direct purchase of renewable energy and purchase of REC certificates, but failure to introduce renewable energy will not satisfy the demands of the final customers and, furthermore, the trend of consumers. This has a risk factor to direct relation to 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)

2,493,902,150,000

Potential financial impact figure – maximum (currency)

3,987,804,300,000

Explanation of financial impact figure

As the demand for eco-friendly products and low-carbon products increases, products that do not meet them see reduced demand, which leads to a decrease in sales. Therefore, it is expected that the cost of R&D investment in product development that understands customer needs and satisfies them will increase. Since 2014, R&D spending as a percentage of sales has exceeded 5% each year. R&D investment costs are expected to increase gradually in the future.
Indeed, it has been growing steadily since 2017, but has never exceeded 10% (6.0% in 2017, 7.2% in 2018, 7.6% in 2019, 7.2% in 2020, 7.1% in 2021). Therefore 5% in sales revenue as the minimum, and 10% as the maximum is computed.

minimum: 1,493,902,150,000=5%*29,878,043,000,000(2021 year sales)
maximum: 2,987,804,300,000=10%*29,878,043,000,000(2021 year sales)

In addition, use of renewable energy (direct purchase of renewable energy or REC indirect purchase) is on review to make net zero achievement, and the amount required to purchase renewable energy is expected to exceed KRW 1 trillion. (This is internally simulated amount required to purchase renewable energy by 2050)
Therefore, the financial impact is calculated with both renewable energy and R&D investment.

Minimum: 1,493,902,150,000+1,000,000,000,000 =2,493,902,150,000
Maximum: 2,987,804,300,000+1,000,000,000,000 =3,987,804,300,000

Cost of response to risk

2,128,305,000,000

Description of response and explanation of cost calculation

LG Display is striving to develop eco-friendly products in order to meet customers' needs in line with trends through market researches or customer surveys and to become an eco-friendly company. In 2014, LGD developed M+ technology with high resolution, low power consumption and outdoor visibility, and applied it to the products. LGD obtained the “QPM certificate” for quality and performance from Intertek. In addition, a green procurement system that prohibits the use of harmful substances from the purchasing stage is being implemented in order to use environmentally superior

materials. LGD is striving to establish a quality management strategy for providing high quality products and achieving “zero” defects. After the development of the M+ technology, it has evolved a step forward towards an eco-friendly display by implementing the low energy consumption and high resolution with
LCD products through IPS nano color technology in order to meet customers' demands for eco-friendly products and to become an eco-friendly company. Raw material savings and eco-friendly product development are also continuing.
KRW 2.1trillion is invested to conduct 3 R&D in 2021, and is resulted in the 1st product development (77" UHD, 48" UHD) at the Guanzhou panel factory.

Also, it spent about 600 million won in purchasing new and renewable energy through the Green Premium programme of KEPCO(Korean electric power corporation)
in 2021 for ESG management and plans to accelerate its transition to new and renewable energy.

Comment

1) R&D Investment: : 2,127,705,000,000
2) renewable energy purchase costs: 600 million

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) Reduced sales due to overall social disadvantages

Primary potential financial impact

Other, please specify

(Reduced sales due to social disadvantage) Reduced sales due to overall social disadvantages)

Company-specific description

Financial institutions and investors use the results of evaluations by sustainability and climate change related evaluation agencies such as CDP and DJSI as investment determinants. Failure to respond appropriately to corporate social responsibility for climate change could negatively affect the corporate image, resulting in a decline of investment value, etc. The brand value of a company is a factor affecting the maintenance of the company as well as long term sales. The decline of the brand value can have a considerable economic impact. As a major investor of LG Display, the National Pension has a stake of 6.65% as of 2021. As a representative of socially responsible investments, LG Display can lose major investors if its climate change

related activities are insignificant. LG is committed to managing climate change and its sustainability reputation.

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)

357,165,720,000

Potential financial impact figure – maximum (currency)

2,987,804,300,000

Explanation of financial impact figure

The demand for transparent information disclosure on climate change response and governance is increasing with the growth of socially responsible investment. If the response is insufficient, the investment will fall, which will have a negative impact on the market value. As the stakeholders' demand for the company's activities and mitigation efforts against climate change grows, negative images may cause LG Display's investment value to fall, and risks of product demand and sales to decline may occur. Climate change risk is included in evaluation since The National Pension Service (including LGD, a shareholder of more than 5%) introduce the stewardship code, and in the conditions when the National Pension Service recovers the investment due to insufficient response to climate change, the treasurer of 357,165,720,000won (National Pension Stock: 23,811,048, LG Display's stock price in 2021: 15,000 won, 23,811,048*15,000=357,165,720,000) can be caused. In addition, the brand value of a company is a factor that affects and influences not only for a considerable economic impact but for the company’s maintenance in the long-term perspective. For instance, sales decline by 10% due to a decline in demand can cause of sales reduction in the amount 2.9 trillion won (10% of 2021 sales, 29,878,043,000,000*10%=2,987,804,300,000).

Cost of response to risk

445,593,000,000

Description of response and explanation of cost calculation

LG Display publishes a Sustainability Report every year (publication of Sustainability Report for 2021: KRW 130 million) and ISO certification (ISO certification cost: KRW 53 million) to share and hear opinions with stakeholders about climate change and other

achievements.The relevant certificate is opened public on LG Display official homepage. The company's qualitative and quantitative performance such as greenhouse gas emissions and sales revenue are presented through business reports. Moreover, LGD actively responds to external communication related to climate change for example of CDP (Certification Cost: KRW 10 million in 2021) and DJSI, and reviews and promotes countermeasures related to climate change issues.In addition, LGD conducts river purification activities to preserve ecosystems in order to fulfill social responsibility as a corporate, and this will be continued.

To ensure solid ESG management, LG Display received ESG consulting in 2021 on LG Display ESG diagnosis, strategy/roadmap establishment and task derivation, costing the company approx. 400 million won. Through ESG consulting, the company plans to firmly establish the ESG operation system and expand the ESG management.

Also, the company issued ESG bonds (green bonds) worth of 445 billion won to invest in production equipment and facilities for eco-friendly OLED products. The entire revenue from the sale of the bonds was invested in OLED production equipment and facilities as originally planned.

Comment

1) Sustainability Report Issuance and Third Party Verification Costs: : (130million)
2) CDP certification Cost:10million won(10million)
3) ISO certification acquisition cost: (53million)
4) ESG consulting cost (400million)
5) ESG green bond issuance cost 445billion)

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Drought due to changes in the average rainfall may cause difficulties in supplying water to manufacturing processes and also may affect product quality due to water quality deterioration. Such process issues may affect as far as production and have a direct impact on LG Display's sales. Especially, due to the nature of LG Display's processes, the production of its main products, namely LCD and OLED panels, uses ultra-pure cleaning water refined from fresh water and uses fresh water for supply to utilities

(cooling tower, scrubber, and boiler). Therefore, the company needs to establish measures to reduce damage to production in this regard.

Time horizon

Medium-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)

2,987,804,300,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The difficulty in supplying water due to changes in average precipitation can increase operating costs due to the increase in the
price of water. In addition, if product quality is negatively affected due to deteriorated water quality, sales may end up declining.
delivery is delayed due to disability to produce, sales are likely to decline. About 10% of decline will lead KRW 2.9 trillion of decrease in sales
(29,878,043,000,000*10%=2,987,804,300,000

Cost of response to risk

22,300,000,000

Description of response and explanation of cost calculation

LG Display is engaged in a variety of activities to minimize the difficulty in supplying water. Since 2004, LG Display has invested 100 billion in wastewater reuse facilities. LG Display has expanded its wastewater reuse rate and reused approximately 60% of wastewater to be used in the production process and utility manufacturing process. In addition, LG Display is reviewing the industrial water infrastructure to establish a supply capacity expansion plan, and is striving to reduce water consumption through equipment and process improvement. LG Display is conducting 24-hour water quality monitoring for product quality control affected by water quality. LGD made an investment of KRW 22.3 billion in wastewater treatment facility and regenerated in 2021 for preventing UT facilities/production equipment down.

Comment

Wastewater investment: 22.3 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

Other, please specify

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Meteorological disasters due to changes in physical climatic factors can lead to strengthening of plant safety and health regulations, which can increase management costs and worsen economic risks. Changes in the average temperature due to climate change result in increased power usage in other facilities, such as clean rooms and freezers. The increase in energy consumption due to the establishment of new plant and corporations can cause additional load on facilities. In addition, the increase in the use of electric power is causing financial burden on LG Display as it increases the electricity costs and operating expenses. For LG Display, energy cost is less than 3% of the total operating cost, but it was the 6th place amongst the other Korean companies in 2021. Therefore, there is a continuous investment risk for energy saving.

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)

793,194,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Changes in the average temperature causes abnormal increases and decreases in temperature, which leads to an increase in the energy use of equipment that maintains temperature and humidity, such as cooling systems. The increase in energy costs due to these changes can lead to an increase in the operating costs of the enterprise, which can be a financial burden.
LG Display energy cost is less than 3% of total operating costs (2019:2.78%, 2020:2.58%, 2020:2.35%) .
LGD is the 6th largest power consumption company in Korea and energy saving investment is continued due to the continuous rise in the average temperature, the maximum value of financial impact is estimated to be less than 3% (2021 total operating cost (KRW 26,439,806 million *3% = KRW 793,194,000,000).

Cost of response to risk

40,250,000,000

Description of response and explanation of cost calculation

To minimize the risk associated with changes in the average temperature and to prevent problems in advance, LG Display is engaged in various activities. In order to compensate for the equipment that can become burdened by temperature changes, after diagnosing the points that can save energy by analyzing facilities, process and energy consumption patterns of the Gumi and Paju plants, LG Display replaced the facilities such as the pumps, compressors, etc. or installed high-efficiency facilities to cut down on power costs and contribute to greenhouse gas reduction. Especially, we reduced fuel consumption by investing 4.4 billion won in dormitory heating resource in 2016. In 2017, we had power saving by producing cold water using of waste water from CDA compressors (investment: 4.8 billion), and saved power by altering industrial P-VAC Pump Type (investment: 0.45 billion) in 2018. In 2019, the air pollution prevention facility installation project (investment amount: KRW 28.7 billion) is conducted. LGD conducted investment of KRW 1.9 billion to improve manufacturing efficiency through facility capacity re-verification and t minimize the number of operating units by adjusting extreme load.
LG Display is trying to prevent the overloading of equipment and increase in energy use by diversifying the supply system of steam needed for maintaining the temperature through the use of incineration heat generated by its own waste, etc.

Comment

1) Investment in Changing Dormitory Heating Media: 4.4 billion
2) Investment in Installation of CDA waste heat refrigerator:4.8 billion
3) power by altering industrial P-VAC Pump Type: 0.45billion
4) Investment in air pollution prevention facilities: 28.7 billion
5) Maintenance cost related to adjustment of facility load: 1.9billion

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) Reduced sales due to overall social disadvantages)

Primary potential financial impact

Other, please specify

(Reduced sales due to social disadvantage) Reduced sales due to overall social disadvantages)

Company-specific description

The impact of climate change has appeared across the entire value chain, from raw materials, and parts quality to product demand. GHG emission regulation has a great impact not only on LGD but the use and disposal of business sites and sales products in the supply chain. If the supplier is suspended due to non-compliance with greenhouse gas regulations, it may be necessary to change the procurement place of the domestic supplier to overseas and it will lead to an increase in material costs. The greenhouse gas emissions and environmental issues of suppliers (such as water quality measurement) are also separately managed through carbon partnerships. The proportion of carbon partnership suppliers' emissions is 3.0% as of 2021 in the total amount of LGD emissions (including Scope 1,2,3). The cost of purchasing raw materials and facilities per year through the supply chain accounts for 58.3% (as of 20201 and the impact is consider to be significant.

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)

2,160,985,200,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

When the procurement office of domestic suppliers has changed to overseas due to the non-compliance of greenhouse gas regulations by the suppliers, equipment purchase cost will be a financial burden to LGD. The cost of purchasing raw materials and

equipment in LGD is KRW 17.4trillion as of 2021, and the proportion of the partners have carbon partnership relations with LGD is 12.4%. (36 companies (carbon partnership partner companies in 2021)/290(all partners business with LGD in 2021)

17.427,300,000,000*12.4%= 2,160,985,200,000

Cost of response to risk

100,003,600,000

Description of response and explanation of cost calculation

LG Display is providing free support to LG Display partners to build a greenhouse gas inventory, educate personnel in charge of partner companies, and provide energy diagnosis consulting (Green SCM consulting). LG Display issues a carbon partnership certificate for companies that have completed consulting. LG Display conducts carbon partnership certification audits once a year for partner companies. The items to audit include the establishment of a greenhouse gas (energy use) emissions amount, the calculation of the amount of emissions, status of energy use, energy conservation cases, and the promotion of education. If these items are implemented, the carbon partnership with LG Display continues to engage in activities for greenhouse gas reduction (energy saving). In addition, carbon partnership certification partners are regularly provided with post-support (greenhouse gas management system and energy technology support) every year. When evaluating the carbon partnership certification, the suppliers are asked for general information on the company, greenhouse gas emissions, energy targets and performance, reduction activities, compliance with laws, and management concerns (risks). This information is used as a basis for satisfaction assessment, joint growth investment, and to determine the supply chain climate change and environmental risk.

As a result of quantative performance in 2021, 2 cases (waste and water quality)were found by inspection on the environmetal compliance of suppliers, and the improvement was completely executed. About KRW 3.6 million will be paid as a fine in the circumstance of no improvement action, however the avoidance of the circumstance was available thrugh advance measures.

Comment

1. Reduced cost of violating law and regulations by suppliers: 3,600,000
2. new win-win cooperation fund: 100billion

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 LGD has incorporated in the emission trading scheme in 2015, has been investing in facilities and plasma scrubbers to replace SF6 process gas used in dry etching process with low carbon emissions. 56% of overall plants' SF6 usage has decreased in 2021 compared to 2015 (introduction of reduction facilities in 2015), and this is 2,246,289 tons of CO2 (KRW 45 billion, per ton cost: KRW 20,000) reduction. When the reduction facility was introduced, in 2015, LGD executed a total of KRW 3.8 billion investment, and sold KRW 16.3 billion in profits by selling the remaining emission rights due to the low emission compared to the government quota. LGD will sell the remaining emission rights to continuously generate profits as the investment and installment of the plasma scrubber reduction facilities has credited. Sales of emission right bring LGD profitability as to access to emerging market as participating in the carbon market.

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)

4,000,000,000

Potential financial impact figure – maximum (currency)

12,000,000,000

Explanation of financial impact figure

Since LGD came to take part in the emissions trading scheme in 2015, it has been working on reducing greenhouse gas emissions. According to the carryover standards of the Emissions Trading Scheme, at least one third of leftover emissions rights must be sold and the rest be carried over. If LG Display's leftover amount is 600,000 tons, the company can sell at least 200,000 tons and up to 600,000 tons. In other words, it can achieve a profit of between 4 billion and 12 billion won in this case. (unit price per ton):20,000won)

minimum: 200,000tCO2*20,000 KRW(unit price per ton)= 4,000,000,000
max: 600,000tCO2*20,000 KRW(unit price per ton)= 12,000,000,000

Cost to realize opportunity

45,000,000,000

Strategy to realize opportunity and explanation of cost calculation

LG Display has executed various GHG emissions reduction activities such as reduction of energy use for its production equipment and utility in order not to exceed the assigned quota in compliance with the emissions trading scheme and to minimize the emission credit purchasing costs. LGD invested 5.0 billion won to upgrade its facilities to replace SF6 gas in the process with unregulated greenhouse gases.
LGD installed plasma scrubber for F-gas reduction. KRW 40billion has invested from 2017 to 2021 to continuously reduce the amount of process gas that has a large portion in LGD emission. This technology will be gradually applied to the production process to reduce greenhouse gas emissions.

Comment

1) Process Gas Substitution/Reduction Technology Investment Cost: 5 billion
2) Investment on Process Gas Cracking Facility: 40billion

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

Providing products that are aligned with these trends is a good opportunity to gain market advantage and increase competitiveness.

Understanding customer's needs, consumption patterns and trends is very important for companies that produce and provide products to customers. As climate change awareness grows and customer needs change to favor eco-friendly products, companies must develop products that meet these needs.
Sales are recently increasing with the certification of eco-friendly products.
Recent major low-carbon product development results are as follows.
2018: High brightness (outdoor visibility), low-power consumption, HDR product implementation by applying UHD RGBW (M +) pixel structure.
2019: Developed The World's first OLED 8K products (OLED has 20% less energy consumption compared to LCD)
2020: Guangzhou OLED panel factory 1st product development is completed(77" UHD, 48" UHD) (UHD is a model M+ technology is applied to reduce power consumption by 35% compared to LCD)
21 년: we acquired green technology certification for touch display technology (AIT: Advanced In-cell Touch) with touch sensing electrodes and transmission lines placed inside. This certification is a system that evaluates and certifies the value and effectiveness of technologies that use energy and resources efficiently to minimize the emission of greenhouse gases and pollutants. LG Display's AIT technology has been certified as green technology that reduces carbon emissions and the use of rare metals by reducing power consumption and the use of parts in the process.
Based on the life cycle assessment (LCA) experience conducted in 2021, we plan to develop evaluation methods and lay the foundation for increasing assessment accuracy and usability. We plan to gradually expand the life cycle assessment to main models by product group, and conduct a life cycle assessment (LCA) for 20% of products in 2022 and 40% in 2023. LG Display will continue to expand the products subject to life cycle assessment to lay the foundation for more systematic development of eco-friendly products.

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)

1,255,379,957,983

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Changes in customer needs due to climate change are important factors for companies to understand. There is a growing interest in environmentally friendly products throughout the world. As a result, environmental regulations and regulations of harmful substances are strengthened, and product development that meets these standards can be linked to corporate profits. LG Display focuses on developing low-power and eco-friendly products within core research areas, and expects to secure market advantage and increase sales by providing products that meet customer needs. If LGD's global market share increases by 1%, sales would increase by about 1,225 billion won. This is based on the company's global market share of 23.8% in 2021 and sales of 29,878,043,000,000 KRW.

LGD sales at 1 % increase in global market share:
31,133,422,957,983=((29,878,043,000,000*24.8%(2021 market share +1% increase))/23.8%
Increase : 1,255,379,957,983 =31,133,422,957,983 (Sales at 1 percent % in global share) – 29,878,043,000,000(2021 sales)

Cost to realize opportunity

2,127,735,000,000

Strategy to realize opportunity and explanation of cost calculation

LG Display is investing 2.1 trillion won in R&D in 2021 to identify the needs of customers and to develop core technologies to differentiate the products. As one of the major accomplishments, the World's first 5.8FHD + product for mobile use is developed. In 2014, LGD developed "M+", a low-power eco-friendly technology that can reduce power consumption by 35% compared to previous technology, and acquired "QPM certification" for quality and performance from Intertek by applying it to products.
In addition, LGD is developing core nanocells of 3rd Generation Super Ultra HD TVs with very low power consumption using local dimming technology that reduces power consumption by dimming the dark local area. 20 models were certified as eco-friendly products in 2017.
In 2021, we acquired green technology certification for touch display technology (AIT: Advanced In-cell Touch) with touch sensing electrodes and transmission lines placed inside. This certification is a system that evaluates and certifies the value and effectiveness of technologies that use energy and resources efficiently to minimize the emission of greenhouse gases and pollutants. LG Display's AIT technology has been certified as green technology that reduces carbon emissions and the use of rare metals by reducing power consumption and the use of parts in the process.
In addition, along with the TUV SUD certification body, we developed an eco-friendly certification program in terms of resource circulation excellence consisting of satisfying WEEE regulations, recycling resources, and the disuse of specific hazardous substances. Based on this, we acquired certifications for OLED TV and PO Mobile models.
The company spent 30 million won in acquiring certifications in 2021 including the green technology certification, TUV certification and SGS certification.

Comment

1) R&D Investment: 2,127,705,000,000
2) certification acqusition cost : 30,000,000

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
Providing products that are aligned with these trends is a good opportunity to gain market advantage and increase competitiveness. Understanding customer needs, consumption patterns and trends is very important for companies that produce and provide products to customers. As climate change awareness grows and customer needs change to favor eco-friendly products, companies must develop products that meet these needs. In addition, eco-friendly images can be an opportunity for emerging markets for countries in the process of economic growth and industrialization. Moreover, the possibility of access to China’s emerging market may increase. China has a big plan to achieve net zero by 2060, and the opportunities to expect increase in sales by applying carbon reduction technology to China where has high dependency on coal may exist.

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)
1,255,379,957,983

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Changes in customer needs due to climate change are important factors for companies to understand. There is a growing interest in environmentally friendly products throughout the world. As a result, environmental regulations and regulations of harmful substances are strengthened, and product development that meets these standards can be linked to corporate profits. LG Display focuses on developing low-power and eco-friendly products within core research areas, and expects to secure market advantage and increase sales by providing products that meet customer needs. If LGD's global market share increases by 1%, sales would increase by about 1,225 billion won. This is based on the company's global market share of 23.8% in 2021 and sales of 29,878,043,000,000 KRW.
LGD sales at 1 % increase in global market share:
31,133,422,957,983=((29,878,043,000,000*24.8%(2021 market share +1% increase))/23.8%
Increase : 1,255,379,957,983 =31,133,422,957,983
(Sales at 1 percent % in global share) – 29,878,043,000,000(2021 sales)

Cost to realize opportunity

2,573,305,000,000

Strategy to realize opportunity and explanation of cost calculation

LG Display is investing 2.1 trillion won in R&D in 2021 to identify the needs of customers and to develop core technologies to differentiate the products.
Also, it spent about 600 million won in purchasing new and renewable energy through the Green Premium programme of KEPCO(Korean electric power corporation) in 2021 for ESG management and plans to accelerate its transition to new and renewable energy.
Also, the company issued ESG bonds (green bonds) worth of 445 billion won to invest in production equipment and facilities for eco-friendly OLED products. The entire revenue from the sale of the bonds was invested in OLED production equipment and facilities as originally planned.

Comment

1) R&D Investment: 2,127,705,000,000
2) renewable energy purchase costs: 600 million
3) ESG green bond issuance cost: 445billion

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

Other, please specify

Reputational benefits resulting in increased demand for goods/services

Company-specific description

Financial institutions and investors use the results of evaluations by evaluation agencies involved in sustainability and climate change such as CDP and DJSI as investment determinants. The company must fulfill its social responsibility activities, and ultimately, these activities will be linked to performance, which will increase sales. LGD is continuously striving to manage its sustainability reputation by preemptively responding to climate problems through activities such as participating in carbon information disclosure projects related to climate change and reducing greenhouse gas emissions. LG Display is included in the Dow Jones Sustainability Index (DJSI) Asia Pacific Index for the six consecutive years in 2018, and won the Energy Champion Good Business for the high level of energy savings and management from the Ministry of Trade and Industry and Energy (MOTIE) and the Korea Energy Agency.
In addition, Gumi plant has achieved to be a green company for 26 years since 1997 in recognition of its continuous environmental improvement achievements.

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)

1,255,379,957,983

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Changes in customer needs due to climate change are important factors for companies to understand. There is a growing interest in environmentally friendly products throughout the world. As a result, environmental regulations and regulations of harmful substances are strengthened, and product development that meets these standards can

be linked to corporate profits. LG Display focuses on developing low-power and eco-friendly products within core research areas, and expects to secure market advantage and increase sales by providing products that meet customer needs. If LGD's global market share increases by 1%, sales would increase by about 1,225 billion won. This is based on the company's global market share of 23.8% in 2021 and sales of 29,878,043,000,000 KRW.
LGD sales at 1 % increase in global market share:
31,133,422,957,983=((29,878,043,000,000*24.8%(2021 market share +1% increase))/23.8%
Increase : 1,255,379,957,983 =31,133,422,957,983 (Sales at 1 percent % in global share) – 29,878,043,000,000(2021 sales)

Cost to realize opportunity

5,360,000,000

Strategy to realize opportunity and explanation of cost calculation

LG Display is striving to fulfill its corporate social responsibilities through environmentally friendly technology. KRW 5.3billion is invested in process gas reduction facility and had achieved (26% of gas emission had reduced compare to 2020_ See Q-7,9a. Reduction verification cost: KRW 30 million) to be incorporated in the Honors Club carbon management for 4 consecutive years. LGD will continue to strive to make a company with social responsibility by continuously responding to eco-friendly management activities.
In 2021, we acquired green technology certification for touch display technology (AIT: Advanced In-cell Touch) with touch sensing electrodes and transmission lines placed inside. This certification is a system that evaluates and certifies the value and effectiveness of technologies that use energy and resources efficiently to minimize the emission of greenhouse gases and pollutants. LG Display's AIT technology has been certified as green technology that reduces carbon emissions and the use of rare metals by reducing power consumption and the use of parts in the process.
In addition, along with the TUV SUD certification body, we developed an eco-friendly certification program in terms of resource circulation excellence consisting of satisfying WEEE regulations, recycling resources, and the disuse of specific hazardous substances. Based on this, we acquired certifications for OLED TV and PO Mobile models.
he company spent 30 million won in acquiring certifications in 2021 including the green technology certification, TUV certification and SGS certification.

Comment

1) Cost of investment in process gas disassembly facilities : 5.3billion
2) Costs of verification of greenhouse gas reduction/Statement Verification: 30,000,000
3) certification acqusition cost : 30,000,000

C3. Business Strategy

C3.1

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

Row 1

Transition plan

No, our strategy has been influenced by climate-related risks and opportunities, but we do not plan to develop a transition plan within two years

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

[Why there is no transition plan as per the 1.5°C scenario]
The 1.5°C scenario requires an annual emission reduction of at least 4.2% compared to the base year. Process gas and power account for 99% of LG Display's emissions. For the scope 1 emissions, the process gas reduction efficiency recognised by the country is max. 90%, but there is currently no reduction technology for some of the process gases. The company is continuing development of process gas reduction technology as a national project, but the target year is 2050. For the scope 2 emissions, the lack of new and renewable energy infrastructure in the country (power generation with renewable energy in 2020 accounts for less than 10% of the total) makes it difficult to reduce any more than 4.2% annually. Due to the lack of technologies and infrastructure, it is currently difficult to build transition plans as per the 1.5°C scenario.

[Future plans]
For the scope 1 reduction, LG Display plans to actively participate in the national projects (95% process gas reduction efficiency, reduction technology development, replacement with low-carbon gas, etc.). For the scope 2 reduction, it plans to use more economical energy sources (sunlight, wind, etc.) according to mid- to long-term market circumstances (unit price, supply, etc.)

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 analysis	Temperature alignment of	Parameters, assumptions, analytical choices

scenario	coverage	scenario	
Transition scenarios IEA 2DS	Company-wide		1. LG Display currently mainly uses process gas and electricity and they account for more than 99% of its total emissions, and considering the current Korean policy concerning process gas, the officially recognized reduction efficiency is up to 90%, and we have no N2O reduction technology. As renewable energy made up 6.4% of the nation's total power generation as of 2020, we adopted IES B2DS to cover IEA 2DS and the greenhouse gas reduction policy to a large extent based on technology that can reduce the largest amount of gas reduction. LG Display considered the greenhouse gas emission reduction scenario only for domestic/overseas business sites (Scope 1 + Scope 2) as an industry. 2. We made projections on the emission amount generated until 2050 based on the recorded emissions in 2018-2021 from domestic/overseas plants, the display industry production CAGR , and the basic 2020 LCD and OLED units (emissions/production area). We assumed that production-related LCD production will be put on hold in 2030 and OLED production volume will increase. We conducted this analysis based on assumptions that NF3, which is not included in the six largest greenhouse gases in Korea, will be included in the greenhouse gas range from 2026 according to the national policy and a national project for greenhouse gas emission reduction in the semiconductor and display industry would be substantially realized by 2050. In the reduction process, yearly F-Gas reduction efficiency and N2O reduction efficiency were applied for Scope 1, and multiple renewable energy conversion methods (REC, PPA, etc.) were applied for Scope 2. Scenario analysis was performed in consideration of linear regression analysis, reduction potential, and growth rate. As a result, we confirmed that our reduction target is feasible and the SBTI 2°C scenario goal can be achieved. 3. The reduction target based on the scenario was included in the sustainability report and quarterly report, and to reduce F-gas, we invested a total of 40 billion won from 2015 to 2021, and we plan to continuously make investments into achieving our reduction plan going forward. LG Display also leveraged the Green Premium system to 100% replace the electricity used in the entire office. With the gradual increase in environmental awareness on renewable energy, consumers and companies are increasingly seeking eco-

			friendly, low-carbon products. R&D costs for developing low power consuming products are always reflected in our budget plan
Physical climate scenarios RCP 4.5	Company-wide		As the global demand for a low-carbon transition is intensifying, stakeholder demands for carbon neutrality are increasing. LG Display analyzed emissions based on the RCP4.5 scenario (where the greenhouse gas reduction policy is substantially realized) by taking into account the current reduction technology level and the carbon-neutral national project (National Display Industry Greenhouse Gas Reduction Policy by 2050).In order to predict changes in temperature and precipitation, future changes in greenhouse gas concentrations must be predicted through RCP scenarios. The Korea Meteorological Administration used the RCP greenhouse gas concentration forecast of the IPCC to come up with a detailed climate change scenario specific to South Korea (1km). For the detailed climate change scenario specific to South Korea, a statistical refinement model (PRIDE) was used. If the current greenhouse gas emission trend is maintained,the temperature is expected to rise by 5.3℃ compared to the present (1981~2010) in the second half of the 21st century (2071~2100). However, according to the RCP4.5 scenario, temperatures are expected to rise below 5.3℃. To prevent precipitation and temperature increase, LG Display has identified items that can save energy by leveraging high-efficiency facilities, understanding facility and manufacturing processes as well as the structure of energy use and consumption, and we are carrying out reduction activities accordingly

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 concern is the current status of the reduction technologies and renewable energy infrastructures available in the country. There is currently a severe lack of reduction technologies and power generation with renewable energy, making achieving net zero difficult. The key to resolving this problem is deemed to be to expand investments in reduction equipment, develop reduction technologies through

cooperation and consider PPA/equity investment for ensuring supply stability and profitability .

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

We made projections on the emission amount generated until 2050 based on the recorded emissions in 2018-2021 from domestic/overseas plants, the display industry production CAGR (applied CAGR of '18-'22), and the basic 2020 LCD and OLED units (emissions/production area). We assumed that production-related LCD production will be put on hold in 2030 and OLED production volume will increase. We conducted this analysis based on assumptions that NF3, which is not included in the six largest greenhouse gases in Korea, will be included in the greenhouse gas range from 2026 according to the national policy and a national project for greenhouse gas emission reduction in the semiconductor and display industry would be substantially realized by 2050.

In the reduction process, yearly F-Gas reduction efficiency and N2O reduction efficiency were applied for Scope 1, and multiple renewable energy conversion methods (REC, PPA, etc.)

Currently, the scope 1 process gas reduction goal has been achieved through investments in the reduction facilities, with the reduction level showing a linear curve. However, the scope 2 reduction is expected to continue an exponential curve trend with the current level of domestic power generation with renewable energy being under 10% of the national total. The company plans to develop and apply low-power production equipment and utility technologies in order to carry forward e-saving activities for scope 2.

Currently, LG Display is pushing forward company-wide reduction activities to reduce its scope 2 emissions. One of them was to replace 100% of the power used in its domestic offices with new and renewable energy through the Green Premium programme. The Green Premium programme is currently the most optimal means for LG Display's transition to new and renewable energy, and the company made the decision to adopt it through the ESG Committee. LG Display plans to continuously include in its financial planning the transition to new and renewable energy, investments in reduction facilities, and development of reduction technologies to realise the level of eco-friendliness required by clients

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	LGD reduced about 18% of production capacity by downsizing the production of TV LCD (OLED is a eco-

		friendly product that consumes 30% less of electricity and over 90% less of plastic use compared to LCD.) as a business strategy to respond to climate change. Meanwhile, LGD is responding to climate change by total suspension of LCD production for Iphones, change it to POLED,. One notable effort was the company's decision to expand the eighth-generation production capacity for CO subsidiary in China (a fab specialised in OLED production) by 30,000 panels in 2021. Also LG Display made the decision to issue ESG bonds (green bonds) in 2021 and plans to procure through the bonds 445 billion won to be put into the expansion of LG Display's OLED panel production lines. LGD reflects compliance with emission trading and overseas standards in the risk factors and make investment in the long-term perspectives. In fact, LGD has set a reduction target until 2050, and plan on timely investment and open the reduction result to public through CSR report.
Supply chain and/or value chain	Yes	Climate change impacts the entire value chain, from raw materials and part production to product demand. GHG emission regulations have a great influence not only on the company but also on the use and disposal at business sites and sales products in the supply chain. Due to the non-compliance of suppliers with greenhouse gas regulations, it may be necessary to replace domestic suppliers with foreign ones, resulting in an increase in material cost. Every year, the company manages its suppliers' greenhouse gas emissions and environmental issues separately through carbon partnerships. Carbon partnership suppliers emission is 2.9% of the total LGD emissions (including Scope 1,2,3) in 2021. Otherwise, annual expenditure on purchase of raw materials, equipment through the supply chain is 10.7% of total revenue (as of 2021), therefore it is considerably influential. As a result, LGD is conducting carbon partnership certification (greenhouse gas emissions performance management, energy saving performance management, and provide energy saving items) every year as an activity of green mutual growth for its supply chain companies. In addition, CSR management (risk management in the fields of environment and safety) of partner companies is leading the way in securing the sustainability of suppliers as well as strengthening the capabilities of suppliers in the long-term perspective. Behavior rules of LGD partner has set and managed since 2018, and it is included in the win-win

		strategy as CSR management requirement for LGD partners are increased from customers. Carbon partnership and CSR management are included in the win-win strategy with the partner companies. LGD has achieved “the best grade” in the win-win growth index for 7 consecutive years. LGD has assessment on the partner companies and includes in the risk factors as the win-win growth companions in the long-term perspectives. Recently, LGD have provided energy saving items to the carbon partnership companies and proceed joint-project on energy saving. The result has reported to the Executives. Monetary prize and commendation have awarded to the partner companies that have achieved good results in the savings project.
Investment in R&D	Yes	As customers' demand for eco-friendly products and low-carbon products increases, the demand for products that do not meet these requirements will decrease, which means that the market share will decrease. If the market share falls, the sales will fall immediately. The development of eco-friendly products and low-carbon products may also lead a burden on corporate R&D investment and investment in new environmental facilities With the reasons above, LG Display is on consideration on the business strategy on annual R&D investment and increase the portion of importance therefore its influence can be considered a significant. For this reason, LG Display's annual R&D investment costs are reflected in its business strategy, and its proportion is increasing (7.6% in 2019, 7.2% in 2020, 7.1% in 2021). LG Display continues to include active investments in the development of differentiated technologies (low-carbon) and products in its business planning to preemptively respond to the global market demands. Development of low-carbon and eco-friendly products has always been an important challenge to the company. The company always takes into account risks in the long-term perspective and is increasing R&D investments each year as strategies to adapt to climate change. In fact, LG Display’s R&D investment in 2021 was 388.2 billion won higher than in 2020, and the company plans to make continuous investments in R&D.

Operations	Yes	In terms of overall product production, technology that reflects high efficiency and low-power products, TDR operation to make power reduction, investment for process gas reduction and R & D cost are always 590 million kwh of power saving target in 2021 and saved 440million kwh. The amount KRW 1.9 billion has invested in energy saving. ② the amount for reduction facilities is invested to process gas reduction in Paju plant, and in fact, KRW 5.3billion is invested to install facilities. ③ the amount of R&D costs for developing low-carbon products is invested as increasing every year (2019: 7.6%, 2020: 7.2%, 2021:7.1%). LG Display's R&D investment in 2021 was 388.2 billion won higher than in 2020, and the company plans to make continuous investments in R&D. In addition, LGD have obtained eco-friendly certification for products every year and have been verified for greenhouse gas reduction by the business sites in terms of enhancing image of eco-friendly company. The cost for product production and eco-friendly image enhancement are all included in the financial cost (strategy). The amount of expense in 2021 is about KRW 2,128 billion, and this is 7.1% of sales revenue in 2021. The proportion of greenhouse gas emission from business sites is 99% of total emission, and achieving the reduction goal has an impact to the sales revenue. Therefore, this is always included in the risk factors in the long-term perspective. These risk factors are surely reflected in the strategy of 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	Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments	1. NF3 is not included in the 6-major greenhouse gas in the Korea emission trading scheme, and LGD has investment in reduction technology for the rest of 6 greenhouse gas reflected in the business strategy. As considering the possibility of regulatory inclusion of NF3 in the emission trading scheme from 2026 moreover, if the US eco-friendly standard certification standard (EPEAT) is enforced (The requirement of the F-gas reduction satisfactory has to be more than 90%), about KRW 298,780million (as of 2021) is expected to be decreased when 1%

		decrease of market share. The expected period is considered to be 5 years (short-term), and this is considering the possibility of regulatory inclusion of NF3 in the emission trading scheme from 2026. In addition, the 6-major greenhouse gas are compliant with the emission quota for responding to the emission trading scheme, and are currently reach the level (EPEAT) of the customers' requirement. Therefore it is considered no impact on the decrease in sales due to climate change. LGD actively reflects the R & D investment for current energy saving in terms of low carbon technology, and it responds to the reputation and market trend in terms of eco-friendly image. However, the risk factor is always managed and monitored in the long-term perspective. Though it has not yet been affected, it is always monitoring greenhouse gas regulations and responding in advance. Compliance with climate change standards/regulations will result in the customer's preferences and the final sales revenue. 2. As LGD has incorporated in the emission trading scheme in 2015, has invested in facilities replacing SF6 process gas using for the dry etching process with relatively low-carbon emission gas, and installed Plasma Scrubber for reducing greenhouse gas emission. 56% of overall plants' SF6 usage has decreased in 2021 compared to 2015 (introduction of reduction facilities in 2015), and this is 2,246,289tons of CO2 (KRW 45 billion, per ton cost: KRW 20,000) reduction. Due to the customer's request for reducing greenhouse gas emission for responding to the regulations/standards of new and existing plants, and facility investment cost (direct cost) to reduce emission has to be reflected in the financial plan. Indirect cost decreased due to low carbon energy conversion, but direct cost of facility investment increased due to introduction of reduction facilities. LGD invested KRW 5.3 billion in greenhouse reduction facility. Climate change investments always have to be included in financial plan, and monitored in the long-term perspective and reflected because it has a great impact in LGD's sales and reputation. 3. As LGD has incorporated in the emission trading scheme in 2015, has invested in facilities replacing SF6 process gas using for the dry etching process with relatively low-carbon emission gas, and installed Plasma Scrubber for reducing greenhouse gas emission. 56% of overall plants' SF6 usage has decreased in 2021 compared to 2015 (introduction of reduction facilities in 2015), and this is 2,246,289tons of CO2 (KRW 45 billion, billion, per ton cost: KRW 20,000) reduction. And LGD has a dedicated department that manages domestic energy saving, and is working on power saving every year. (2019: 810 million kwh, 2020: 760million kwh, 2021: 440million kwh) The portion of energy cost (direct cost) in the operating cost is decreasing

		every year, with power saving and replacement of low carbon gas. (2019:2.78%, 2020:2.58%, 2020:2.35%) Though the degree of decrease is not significantly large, LGD is always conducting company-level of power saving activities to reduce indirect costs every year. Volume of energy reduction is managed by the energy department and is included in in the company-level operating expenses. LGD is the 5th largest power consumption company in Korea, and has to continue to reduce energy costs in the long term. Indirect cost for domestic power consumption is expected to decrease in the future. There is a strong demand from some of the customers for converting 100% of electricity used in production plant be converted to renewable energy (by 2022), and indirect investment cost (certificate purchase, costs such as direct purchase of new and renewable energy) are expected to increase. Therefore, indirect cost also has to be reflected in financial plan when overseas corporation decides to introduce new and renewable energy. 4. As a business strategy to diversify panel production and expand production capacity, LG Display continues to invest in expansion and re modeling of existing production facilities, including additional production lines and new plants. In the process of reflecting investment, the capital expenditure with a large portion of OLEDs, which are high-efficiency products in terms of climate change, is reflected. In anticipation of increasing demand for OLEDs, E5 and E6 production line plans were announced in 2015 and 2016, and E5 has already started mass production in 2017. In 2018, LGD jointly invested and established with the Guangzhou Government to develop LG Display High-Tech (China) Co. Ltd, a new large OLED production line, in July. 2018, and its capital investment was about 5 trillion KRW. China CO corporation started full-range production of OLED. In addition, the total investment in POLED facility was KRW 7.8 trillion (2019) and KRW 3 trillion (2020), KRW 3.3 trillion (2021) was invested in the 10.5th generation large OLED panel production facility, thereby consolidating OLED business foundation and preparing a business strategy to increase the proportion of low-power/high-efficiency products regarding the climate change. LGD declared the withdrawal of LCD business and conversion to OLED business, and investment cost for OLED facilities always have to be reflected in financial plan to make mid- to long-term of LGD vision, “You Dream, We Display”. 5. Indirect emissions (electricity) account for less than 50% of LG Display's greenhouse gas emissions. As a business strategy to reduce power consumption, LG Display invests in high-efficiency facilities and sells old and low-efficiency facilities. As one of its business strategies, LG Display acquired OLED lighting, which consumes very little power, from

		LG Chem in 2015, and started operation of its production line in July, 2017. OLED lighting is expected to grow strongly in the light source market, and the overall size is expected to be 40 trillion won. The effect of it upon can be significant since it is considered on the overall business strategy. Old and low-efficiency facilities require a risk of additional operating cost. P3 plant has closed and all old facilities had disposed by sale in 2018. And the entire Polish overseas corporation's assets were sold, and reduced greenhouse gas emissions in 2019. These examples are reflected in the general business plan of LGD, and the impact is considerably high.

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

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 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 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)

2,091,506

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

4,944,476

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)

7,035,982

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

68.2663678149

Target status in reporting year

Revised

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain target coverage and identify any exclusions

1. The company's goals were set for 100% of scopes 1 and 2 (location-based). The locations are Korea, China and Vietnam.

2. Abs1: LG Display set the reduction target (absolute amount basis) for GHG emissions by 2022 based on the data from 2014 to reduce greenhouse gas emissions. LG Display achieved the reduction of 1,112,540tCO2eq from 2014, the base year, through the application of SF6 mitigation technology in 2021 and campaigns to reduce greenhouse gas emissions (energy savings). This is equivalent to 68.3% of the target reduction amount of 1,629,704tCO2eq in 2022.
This current level is short of the reduction goal for 2021, which is 1,425,991 tCO2eq (17.5% reduction from the 2014 emission level). Although process gas reduction facilities have been installed and are in operation for scope 1, the scope 2 goal has not yet been reached with the power usage increasing due to the mass production in new plants.

* 68.3% =1,112,540((8,148,522(2014 emissions)- 7,035,982(2021 emissions))/1,629,704(2022 target emissions reduction) *100%

3. The base year is designated as the fiscal year (Jan.1. 2014 ~ Dec.31. 2014).

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

LG Display has set the annual reduction goal for scopes 1 and 2 at 2.5% of the base-year level. However, the goal has not yet been achieved for scope 2 with the increasing power usage due to the production increase and mass production in new plants. To achieve the goal, LG Display plans to carry out the following reduction activities.

[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

Currently, the scope 1 process gas reduction goal has been achieved through investments in the reduction facilities, with the reduction level showing a linear curve. However, the scope 2 reduction is expected to continue an exponential curve trend with the current level of domestic power generation with renewable energy being under 10% of the national total. The company plans to develop and apply low-power production equipment and utility technologies in order to carry forward e-saving activities for scope2.

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

Target reference number
Abs 2

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 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 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)

2,091,506

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

4,944,476

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)

7,035,982

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

34.1331839075

Target status in reporting year

Revised

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain target coverage and identify any exclusions

1. The company's goals were set for 100% of scopes 1 and 2 (location-based). The locations are Korea, China and Vietnam.

2. Abs2: LG Display set the reduction target (absolute amount basis) for GHG emissions by 2030 based on the data from 2014 to reduce greenhouse gas emissions. LG Display achieved the reduction of 1,112,540tCO2eq from 2014, the base year, through the application of SF6 mitigation technology in 2021 and campaigns to reduce greenhouse gas emissions (energy savings). This is equivalent to 34.1% of the target reduction amount of 3,259,409tCO2eq in 2030.

* 34.1% =1,112,540((8,148,522(2014 emissions)- 7,035,982(2021 emissions))/3,259,409(2030 target emissions reduction) *100%

3. The base year is designated as the fiscal year (Jan.1. 2014 ~ Dec.31. 2014).

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

LG Display has set the annual reduction goal for scopes 1 and 2 at 2.5% of the base-year level. However, the goal has not yet been achieved for scope 2 with the increasing power usage due to the production increase and mass production in new plants. To achieve the goal, LG Display plans to carry out the following reduction activities.

[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

Currently, the scope 1 process gas reduction goal has been achieved through investments in the reduction facilities, with the reduction level showing a linear curve. However, the scope 2 reduction is expected to continue an exponential curve trend with the current level of domestic power generation with renewable energy being under 10% of the national total. The company plans to develop and apply low-power production equipment and utility technologies in order to carry forward e-saving activities for scope2.

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

Target reference number

Abs 3

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 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 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)

2,091,506

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

4,944,476

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)

7,035,982

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

15.1703039589

Target status in reporting year

Revised

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain target coverage and identify any exclusions

1. The company's goals were set for 100% of scopes 1 and 2 (location-based). The locations are Korea, China and Vietnam.

2. Abs3: LG Display set the reduction target (absolute amount basis) for GHG emissions by 2050 based on the data from 2014 to reduce greenhouse gas emissions. LG Display achieved the reduction of 1,112,540tCO2eq from 2014, the base year, through the application of SF6 mitigation technology in 2021 and campaigns to reduce greenhouse gas emissions (energy savings). This is equivalent to 15.2% of the target reduction amount of 7,333,670tCO2eq in 2050.

* 15.2% =1,112,540((8,148,522(2014 emissions)- 7,035,982(2021 emissions))/7,333,670(2050 target emissions reduction) *100%

3. The base year is designated as the fiscal year (Jan.1. 2014 ~ Dec.31. 2014).

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

LG Display has set the annual reduction goal for scopes 1 and 2 at 2.5% of the base-year level. However, the goal has not yet been achieved for scope 2 with the increasing power usage due to the production increase and mass production in new plants. To achieve the goal, LG Display plans to carry out the following reduction activities.

[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

Currently, the scope 1 process gas reduction goal has been achieved through investments in the reduction facilities, with the reduction level showing a linear curve. However, the scope 2 reduction is expected to continue an exponential curve trend with the current level of domestic power generation with renewable energy being under 10% of the national total. The company plans to develop and apply low-power production equipment and utility technologies in order to carry forward e-saving activities for scope2.

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

Target reference number

Abs 4

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 emissions covered by target (metric tons CO2e)

331,825

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

331,825

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

84.3

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

84.3

Target year

2050

Targeted reduction from base year (%)

80

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

66,365

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

210,912

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

210,912

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

45.5484818805

Target status in reporting year

New

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain target coverage and identify any exclusions

1. As for scope 3, goals were set only for the goods and services purchased for scope 3 in Korea.

2. Abs4: LG Display has set a greenhouse gas reduction goal for scope 3 (absolute level) for the target year 2050 from the base year 2018. In 2021, the emission level was lowered by 120,913tCO2eq from the 2018 level. This is almost 44.2% of the 2050 target reduction amount, which is 273,756 tCO2eq.

*45.5% =120,913((331,825(2018 emissions)- 210,912(2021 emissions))/265,460(2050 target emissions reduction) *100%

The base year is designated as the fiscal year (Jan.1. 2018 ~ Dec.31. 2018).

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

LG Display has set the annual reduction goal for scope 3 at 2.5% of the base-year level.

[Reduction activities]
LG Display regularly provides energy-saving ideas to its partner companies, annually sets an energy-saving goal, and monitors the achievement level.

With regard to scope 3, it is expected that, if the company-wide goals are not properly achieved or no clear reduction goals are set for overseas subsidiaries, reduction may

only occur in the short term. However, if detailed reduction plans are set for scope 3, the reduction level is expected to gradually reach the target. Based on this, the scope 3 reduction is expected to progress in an exponential curve trend.

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?

No other climate-related targets

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	0	0
To be implemented*	0	0
Implementation commenced*	1,244	95,546
Implemented*	7,421	1,751,591
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

1,751,591

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

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

35,030,000,000

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

5,280,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Large share of energy costs come from those that are not used in the facilities. Thus, LG Display has been saving energy and enhancing energy efficiency using an exclusive budget for energy saving. Furthermore, the annual greenhouse gas reduction is about 1,751,591tCO2eq in 2021 by replacing SF6 gas used in the production process with low GWP gas and installing reduction facilities for F gas reduction.

Paju plant had invested in a plasma scrubber for greenhouse gas emission in 2021 (investment cost KRW 5.3billion), and the facility is currently on operation as the reduction is certified.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Every year, LG Display reflects its budget for facility investment and repair in order to save energy and improve facility efficiency. LG Display checks the progress each month on the designated Energy Day.
Dedicated budget for low-carbon product R&D	For low-carbon products that can minimize energy consumption and eco-friendly products, R&D investments are made to develop high efficiency products and low-carbon products in connection with the business strategy.
Dedicated budget for other emissions reduction activities	In order to comply with government quotas, LG Display reflects the budget for facility replacement work to replace SF6 with NF3 and

	introducing reduction technology for process gas cracking.
Employee engagement	Compliance rate with the emission quotas (compliance rate is associated with emissions reduction activities) has been set as KPI and year-end personnel evaluation is conducted to assess their KPI achievement. The result of personnel evaluation is directly related to individual incentives and promotion.
Internal incentives/recognition programs	The internal incentive system for monetary compensation for the achievement of the emission reduction target is existing.

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?

No

C5.1a

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

Row 1

Has there been a structural change?

No

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	Gumi Learning Center, which used to be under LG Display's operational control, has been closed since 30 September 2021 and thus has been excluded from greenhouse gas emission calculations from October onwards.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	No, because the operations acquired or divested did not exist in the base year	LG Display's base year is 2014, and there were no acquired or sold businesses in this period. Gumi Learning Center mentioned in 5.1b was subject to operational control in the base year 2014, and, as its emission level was considered in the calculation, there is no need to recalculate the emission level. LG Display's severity criterion for greenhouse gas emissions is 2% of the entire business sites' level, and recalculation is required when this criterion is exceeded.

C5.2

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

Scope 1

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

4,893,278

Comment

Domestic emission : 4,884,722 tco2
Overseas emission : 8,556 tco2

Scope 2 (location-based)

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

3,255,244

Comment

Domestic emission : 2,840,809 tco2
Overseas emission : 414,435 tco2

Scope 2 (market-based)

Base year start
January 1, 2014

Base year end
December 31, 2014

Base year emissions (metric tons CO2e)
0

Comment
no emission in 2014

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
How to estimate: Each supplier estimates its total GHG emissions and then, from the total amount, obtains the amount of emissions corresponding to the share of the products or services delivered to LG Display. As primary suppliers provide over 90% of goods and services, they are assumed to be responsible of all (100%) emissions in the calculation.
Calculation: Scope 1+2 GHG emissions of suppliers

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
Not relevant, explanation provided(There is no amount of emissions from capital goods purchased or owned.)

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(GHG emissions from fuel purchases are included in Scope 1 fixed combustion emissions.)

Scope 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)

1,120

Comment

1) Vehicles
-
Calculationmethodology:Fueluse(L)×lowcalorificpower(TJ/kL)×GHGemissionfactor(tCO2e/TJ)÷1000
- Fuel use (L): Total travel range (km) ÷ basic fuel efficiency (L/km)
- Low calorific power: Korea National Calorific Value (source: Guidelines for GHG Target Management in Korea)
-GHGemissionfactors:IPCCGuidelinefornationalGHGinventories(2006)
2) Trains
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of train (source: KEITI)
3)Aviation
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of aviation (source: EPA)

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(Waste emissions are included in Scope 1 waste incineration and landfill emissions)

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

1) Vehicles
-
Calculationmethodology:Fueluse(L)×lowcalorificpower(TJ/kL)×GHGemissionfactor(tCO2e/TJ)÷1000
- Fuel use (L): Total travel range (km) ÷ basic fuel efficiency (L/km)
- Low calorific power: Korea National Calorific Value (source: Guidelines for GHG Target Management in Korea)
-GHGemissionfactors:IPCCGuidelinefornationalGHGinventories(2006)
2) Trains
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of train (source: KEITI)
3)Aviation
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of aviation (source: EPA)

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(LG Display operates commuter buses in all its office areas for the convenience of employees. The emissions from commuter buses are included in the Scope 1 emissions from mobile combustion.)

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(As the organizational boundary is set into the operating control approach, the emissions from leasehold sites are included in Scope 1 emissions.)

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

2,017

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)

53,975

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(As the company does not assembly final products, there is no sufficient data available. Due to the assumption that the company products are utilized to produce final goods, they were included under the the Processing of sold products category.)

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(As the company does not assembly final products, there is no sufficient data available. Due to the assumption that the company products are utilized to produce final goods, they were included under the the Processing of sold products category.)

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(No leased property)

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(LG Display has no franchise sites as it is a B2B company)

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(As LG Display owns shares in primary suppliers, emissions are included in Scope 3 category 1. Purchased Goods and Services.)

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(No other upstream)

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant, explanation provided(No other downstream)

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

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

2,091,506

Comment

Domestic emission : 1,967,656 tco2
Overseas emission : 123,850 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

Location- based Scope 2
Domestic emission : 2,816,059 tco2
Overseas emission : 2,128,417 tco2

market-based Scope 2
Domestic emission : 2,789,781 tco2
Overseas emission : 2,128,417 tco2

C6.3

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

Reporting year

Scope 2, location-based

4,944,476

Scope 2, market-based (if applicable)

4,918,198

Comment

Location- based Scope 2
Domestic emission : 2,816,059 tco2
Overseas emission : 2,128,417 tco2

market-based Scope 2
Domestic emission : 2,789,781 tco2
Overseas emission : 2,128,417 tco2

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 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)

210,912

Emissions calculation methodology

Supplier-specific method

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

100

Please explain

How to estimate: Each supplier estimates its total GHG emissions and then, from the total amount, obtains the amount of emissions corresponding to the share of the products or services delivered to LG Display. As primary suppliers provide over 90% of goods and services, they are assumed to be responsible of all (100%) emissions in the calculation.
Calculation: Scope 1+2 GHG emissions of suppliers (total of 36 firms)

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

There is no amount of emissions from 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 emissions from fuel purchases are included in Scope 1 fixed combustion emissions.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

745

Emissions calculation methodology

Distance-based method

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

100

Please explain

1) Vehicles
-
Calculationmethodology:Fueluse(L)×lowcalorificpower(TJ/kL)×GHGemissionfactor(tCO2e/TJ)÷1000
- Fuel use (L): Total travel range (km) ÷ basic fuel efficiency (L/km)
- Low calorific power: Korea National Calorific Value (source: Guidelines for GHG Target Management in Korea)
-GHGemissionfactors:IPCCGuidelinefornationalGHGinventories(2006)
2) Trains
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of train (source: KEITI)
3)Aviation
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of aviation (source: EPA)

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

Waste emissions are included in Scope 1 waste incineration and landfill emissions

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,913

Emissions calculation methodology

Distance-based method

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

100

Please explain

1) Vehicles
-
Calculationmethodology:Fueluse(L)×lowcalorificpower(TJ/kL)×GHGemissionfactor(tCO2e/TJ)÷1000
- Fuel use (L): Total travel range (km) ÷ basic fuel efficiency (L/km)
- Low calorific power: Korea National Calorific Value (source: Guidelines for GHG Target Management in Korea)
-GHGemissionfactors:IPCCGuidelinefornationalGHGinventories(2006)
2) Trains
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of train (source: KEITI)
3)Aviation
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of aviation (source: EPA)

Employee commuting

Evaluation status

Not relevant, explanation provided

Please explain

LG Display operates commuter buses in all its office areas for the convenience of employees. The emissions from commuter buses are included in the Scope 1 emissions from mobile combustion.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

As the organizational boundary is set into the operating control approach, the emissions from leasehold sites are included in Scope 1 emissions.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,482

Emissions calculation methodology

Distance-based method

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

100

Please explain

1) Vehicles
-
Calculationmethodology:Fueluse(L)×lowcalorificpower(TJ/kL)×GHGemissionfactor(tCO2e/TJ)÷1000
- Fuel use (L): Total travel range (km) ÷ basic fuel efficiency (L/km)
- Low calorific power: Korea National Calorific Value (source: Guidelines for GHG Target Management in Korea)
-GHGemissionfactors:IPCCGuidelinefornationalGHGinventories(2006)
2) Trains
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of train (source: KEITI)
3)Aviation
-Calculationmethodology:Totaltravelrange(km)×GHGemissionfactor(tCO2e/km)
- GHG emission factor: GHG emission per travel range of aviation (source: EPA)

Processing of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

7,744

Emissions calculation methodology

Spend-based method

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

100

Please explain

Calculation methodology (Cost-based calculation): Product sales cost (Sales of LG Display's clients) * emission factor per cost = 264,044,
000,000*814,73/27,778,047,314,000=7,744
-Sales of LG Display's clients: Sales of key supplier, LG Electronics, 0.26 trillion won
- Emission factor per cost: GHG emissions volume of key clients /Total revenue of key clients =814,734tCO2e/27,778,047,314,000 KRW

Parts from LG Display are supplied to key electronics company to be processed into products, and GHG emissions is calculated using
emissions factor per key client LG electronics' costs.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

As the company does not assembly final products, there is no sufficient data available. Due to the assumption that the company products are utilized to produce final goods, they were included under the the Processing of sold products category.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

As the company does not assembly final products, there is no sufficient data available. Due to the assumption that the company products are utilized to produce final goods, they were included under the the Processing of sold products category.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

No leased property

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

LG Display has no franchise sites as it is a B2B company

Investments

Evaluation status

Not relevant, explanation provided

Please explain

As LG Display owns shares in primary suppliers, emissions are included in Scope 3 category 1. Purchased Goods and Services.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other upstream

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other downstream

C6.7

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

No

C6.10

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

Intensity figure

0.2355

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

7,035,982

Metric denominator

unit total revenue

Metric denominator: Unit total

29,878,043,071,000

Scope 2 figure used

Location-based

% change from previous year

15.4

Direction of change

Decreased

Reason for change

LG Display installed reduction facilities that remove F-Gas in its domestic sites. Using the facilities, the company reduced CO2 emission by 1,708,567 tons in 2021. Also, through power-saving activities, the company cut down the CO2 emissions by 43,024 tons, and the total reduction amount in 2021 was 1,751,591 tons.

2020 intensity : (0.2784tCO2e/million): 6,744,793(Greenhouse gas emissions in 2020) / 24,230,124 million (Total sales in 2010)
2021 intensity : (0.2355tCO2e/million): 7,035,982(Greenhouse gas emissions in 2021) / 29,878,043 million (Total sales in 2011)

Increase/Decrease Rate (-15.4%)= (0.2355-0.2784)/0.2784 * 100%

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	140,400	IPCC Second Assessment Report (SAR - 100 year)
CH4	59,813	IPCC Second Assessment Report (SAR - 100 year)
N2O	645,374	IPCC Second Assessment Report (SAR - 100 year)
HFCs	882	IPCC Second Assessment Report (SAR - 100 year)
PFCs	115,783	IPCC Second Assessment Report (SAR - 100 year)
SF6	1,129,254	IPCC Second Assessment Report (SAR -

		100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Viet Nam	7,504
China	116,346
Republic of Korea	1,967,656

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	701	37.52785	126.925332
P1/Mod	10,790	36.100272	128.404582
P456	244,125	36.096081	128.408396
P6E	59,082	36.095593	128.40436
Dongrakwon dormitory	671	36.112085	128.401603
Naraewon dormitory	0	36.077984	128.416634
Kkumnarae kindergarten	5	36.073858	128.408036
Paju establishment	1,639,861	37.809532	126.770526
Paju waste treatment facility	11,624	37.81352	126.753775
Jeongdaun kindergarten	54	37.81031	126.75727
Gumi learning center	148	36.122399	128.38475
Paju learning center	79	37.809532	126.770526
China establishment facility	116,346	23.162118	113.485134
Viet Nam establishment facility	7,504	20.863264	106.565514
Magok Science park	516	37.5624	126.830363

C7.5

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

Country/Region	Scope 2, location-based (metric tons	Scope 2, market-based (metric tons

	CO2e)	CO2e)
Viet Nam	323,417	323,417
China	1,805,000	1,805,000
Republic of Korea	2,816,059	2,789,781

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	1,351	1,351
P1/Mod	88,288	88,288
P456	493,249	493,249
P6E	106,033	106,033
Dongrakwon dormitory	820	820
Naraewon dormitory	9	9
Kkumnarae kindergarten	3	3
Paju establishment	2,112,430	2,086,152
Paju waste treatment facility	2,109	2,109
Jeongdaun kindergarten	72	72
Gumi learning center	333	333
Paju learning center	698	698
China establishment facility	1,805,000	1,805,000
Viet Nam establishment facility	323,417	323,417
Magok Science park	10,664	10,664

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?

Increased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	26,278	Decreased	0.4	In 2021, the company purchased 57,200 MWh of renewable energy through the Green Premium programme and reduced greenhouse gas emissions by 26,278tCO2. The previous year's greenhouse gas emission level was 6,744,793tCO2. Emission Increase/Decrease Rate (-0.4%) = 26,278 (decrease in carbon emissions through transition to renewable energy in 2021) / 6,744,793 (carbon emissions level in 2020)*100%
Other emissions reduction activities	1,751,591	Decreased	26	Methods used include operation of CDA air compressor at increased load for reduced power consumption by refrigerators and application of high-efficiency conditions for refrigerant circulation in refrigerators. Other main activities for greenhouse gas reduction include process gas replacement and reduction facilities installation. These activities reduced the greenhouse gas emissions by 1,751,591tCO2eq in 2021. Emission Increase/Decrease Rate (-26.0%) = 1,751,591(CO2 reduction through reduction activities)/ 6,744,793(CO2 emission in 2020) *100
Divestment	0	No change		History of selling greenhouse gas emission right exist, because emission right has leftover due to less emission compared to the emission right.
Acquisitions	0	No change		No history of Acquisitions
Mergers	0	No change		No history of merging

Change in output	291,189	Increased	4.3	Production increased by 19.2% compared to 2020 ((8,124 (2021's production - 6,815 (2020's production))/6,815 (2020's production)), resulting in a 4.3% increase in greenhouse gas emission level compared to 2020. emission Increase/Decrease Rate (4.3%) = ((7,035,982(CO2 emission in 2021)-6,744,793(CO2 emission in 2020))/6,744,793(CO2 emission in 2020)*100
Change in methodology	0	No change		calculation method had not changed
Change in boundary	0	No change		Organizational boundary had not changed
Change in physical operating conditions	0	No change		Physical operating conditions had not changed
Unidentified	0	No change		Unidentified had not changed
Other	0	No change		Other had not changed

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	Yes

feedstocks)	
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	579,719	579,719
Consumption of purchased or acquired electricity		57,200	9,042,257	9,099,457
Consumption of purchased or acquired heat		0	5,988	5,988
Consumption of purchased or acquired steam		0	148,840	148,840
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		57,200	9,776,804	9,834,004

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

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use Sustainable biomass

Other biomass

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use Other biomass

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use Other renewable fuels

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use Coal

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use Oil

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

We don't use gas

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

Heating value

HHV

Total fuel MWh consumed by the organization

579,719

MWh fuel consumed for self-generation of electricity

216

MWh fuel consumed for self-generation of heat

263,285

MWh fuel consumed for self-generation of steam

316,218

Comment

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

579,719

MWh fuel consumed for self-generation of electricity

216

MWh fuel consumed for self-generation of heat

263,285

MWh fuel consumed for self-generation of steam

316,218

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	111	111	0	0
Heat	0	0	0	0
Steam	397,222	397,222	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.

Sourcing method

Green electricity products from an energy supplier (e.g. green tariffs)

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Renewable energy mix(Solar energy, Hydro power, Wind energy, biomass et.)

Country/area of low-carbon energy consumption

Republic of Korea

Tracking instrument used

REGO

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

57,200

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

Republic of Korea

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

2,021

Comment

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Republic of Korea

Consumption of electricity (MWh)

6,185,380

Consumption of heat, steam, and cooling (MWh)

956,589

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

7,141,969

Country/area

China

Consumption of electricity (MWh)

2,559,953

Consumption of heat, steam, and cooling (MWh)

175,154

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

2,735,107

Country/area

Viet Nam

Consumption of electricity (MWh)

354,235

Consumption of heat, steam, and cooling (MWh)

26

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

354,261

C9. Additional metrics

C9.1

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

Description

Other, please specify

Power Savings

Metric value

437,200,000

Metric numerator

Power Savings

Metric denominator (intensity metric only)

% change from previous year

42.7

Direction of change

Decreased

Please explain

Because the portion of electricity in emissions is high, power saving is managed as other climate change indicators The volume of power saving in 2020 is 762million kwh, and 437million kwh is in 2021. 42.7% of reduction ratio is resulted in 2021 compared to 2020. Intensification factor (-42.7%)=((437(power saving in 2021)-762(power saving in 2020))/762(power saving in 2020)

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

2021 Third Partys Verification Statement(Scope1_Korea corporation).pdf
2021 Third Partys Verification Statement(Scope1_CA corporation).pdf
2021 Third Partys Verification Statement(Scope1_CO corporation).pdf

Page/ section reference

2021 Third Partys Verification Statement(Scope1_CA corporation) 1page
2021 Third Partys Verification Statement(Scope1_CO corporation) 1page
2021 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

2021 Third Partys Verification Statement(Scope2_CO corporation).pdf
2021 Third Partys Verification Statement(Scope2_CA corporation).pdf
2021 Third Partys Verification Statement(Scope2_Korea corporation).pdf

Page/ section reference

2021 Third Partys Verification Statement(Scope2_CA corporation) 1page
2021 Third Partys Verification Statement(Scope2_CO corporation) 1page
2021 Third Partys Verification Statement(Scope2_Korea corporation) 2page

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

86

C10.1c

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

Scope 3 category

Scope 3: Purchased goods and services
Scope 3: Upstream transportation and distribution

Scope 3: Business travel
Scope 3: Downstream transportation and distribution
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(2021).pdf

Page/section reference

1. 1page
2. Purchased goods and services(210,912tco2)+ transportation and distribution(3,227tco2)+Business travel(1,913tco2)+Processing of sold products(7,744tco2)=Total Scope3(223,796tco2)

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Emissions reduction activities	Use the 「CDM Methodology (AM0065)_Replacement of SF6	This is to replace SF6 with NF3 (non-regulated greenhouse gas) to reduce the use of SF6 and secure additional greenhouse gas emission credits through internal reduction certification

		With alternate cover gas in the magnesium Industry 」 Methodology published by UNFCC as verification criteria.	(applicationforadditionalnew/extensionassignments). - The reasons for selecting the CDM methodology AM0065 as the verification criteria are as follows. First, the project type is similar in the aspect that it partially or wholly applies the technology of replacing SF6 used in dry-etching with non-regulated greenhouse gas NF3 in conventional LCD manufacturing processes. Second, SF6 emissions can be prevented by using NF3, a non-greenhouse gas, as an etching gas in the project to reduce GHG emissions. Third, under critical conditions for applicable methodology, the SF6 replacement project can be applied in LCD manufacturing processes, and it is similar in the sense that the etching process has at least three years of production history before replacement activity in the LCD manufacturing process. Last, the important variables are similar in that the amount of LCD produced in the last three years and the amount of SF6 consumed in the LCD manufacturing process for the last three years before substitution can be evaluated and monitored. - Verification Frequency: Once/year -Verification Scope: Applies only to the discharge facilities which have replaced SF6 with NF3 in the domestic plants using SF6 process gas. 1, 2
C2. Risks and opportunities	Other, please specify (all CDP Climate Change Respond All quest) CDP Climate Change Respond All questions Verification	This verification was conducted in accordance with the following principles and criteria of greenhouse gas emissions calculation and CDP verification.	1. Verification Frequency and Verification Scope - Verification Frequency: Once/year - Verification Scope: 1) The verification has covered the response describing activities on climate change performance and systems on LG Display's domestic sites and overseas sites(China and Vietnam) according to operational control approach of WRI/WBCSD GHG protocol Chapter3. 2)LG Display's response for CDP Climate Change 2021 Information Request includes direct emissions (Scope1), indirect emissions (Scope2) and Scope3 emissions already confirmed by a third party verification. 2. Criteria & Protocols used for Verification This verification was conducted in accordance with the following principles and criteria of greenhouse gas emissions calculation and CDP verification.

			- CDP's 2021 Climate Change Information Request - CDP Worldwide - CDP's 2021 Climate Change Response Guideline - CDP Korea - CDP's 2021 Climate Change Response Evaluation Methodology - CDP Korea - CDP Response Verification Guideline - CDP Korea - ISO14064 Part 3 - Issued 2006 - The WRI/WBCSD GHG Protocol / A Corporate Accounting and Reporting Standard - Revised edition [3]

[1]GHG_Reduction_Verification_Statement(P8).pdf

[2]GHG Reduction Verification Statement(P9).pdf

[3]CDP Climate Change 2022 Information Response_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

41

% of Scope 2 emissions covered by the ETS

59

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

4,976,091

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

1,967,656

Verified Scope 2 emissions in metric tons CO2e

2,816,059

Details of ownership

Facilities we own and operate

Comment

currently, only Domestic branches in Korea only is participate in the emission trading system, and overseas subsidiaries are not is participation.

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 5.3 billion) for greenhouse gas reduction was installed at Paju plant in 2021. 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 2014 (90% reduction by 2050, compared to 2014 emission) (ref. C4.1a) In the short-term strategy.
[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 originated or purchased any project-based carbon credits within the reporting period?

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.

Objective for implementing an internal carbon price

Navigate GHG regulations

GHG Scope

Scope 1

Application

Greenhouse gas reduction is not a specific issues, but has to be applied to overall company.

Actual price(s) used (Currency /metric ton)

36,486

Variance of price(s) used

The internal price on carbon of LGD is calculated as the investment amount of 2019 reduction facility (13.5 billion) and the reduction amount (370,000 tons).
36,486=13,500,000,000/370,000
the factor affecting to the internal price on carbon is the fluctuations in production volume (variable emissions); partial closing or production decline will result in a decrease of emission., and new establishment of business sites will result in a increase of emission and of reduction. This may also differ in carbon prices, as the production ratio (greenhouse gas emissions) is different from when the reduction facilities were invested.

Type of internal carbon price

Internal fee

Impact & implication

Due to the nature of LG Display's industry, the company uses fluorine gas (F-Gas) in the process of producing panels. LG Display installed process gas reduction facilities (plasma scrubbers) capable of removing more than 90% of the F-Gas in the Paju and Gumi sites as per the requirements by the Emissions Trading Scheme (Korea ETS) and client companies.
The internal carbon price is reflected in the climate change decision-making as a main criterion for LG Display's timely investment in reduction facilities and selling of emission rights. In fact, the company has a record of selling its greenhouse gas emission rights at higher prices than the internal carbon price, which created profits for the company.
The internal price on carbon of LGD is used in two aspects.
First, when investing in greenhouse gas reduction, the final investment is decided by analyzing the period of recovery of investment cost and the number of facility investment based on the internal carbon price and reporting it to CEO.
Second, it is used for selling surplus emission permits. LGD analyse the trend of the unit price and the prospect of supply and demand, and review and decide the timing of selling the sales point by monitoring the opportunities when the unit price of permits is higher than internal carbon price.

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 climate change and carbon information at least annually from suppliers

% of suppliers by number

12.4

% total procurement spend (direct and indirect)

29.8

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

97.6

Rationale for the coverage of your engagement

growth support project among our 290 suppliers (by standard of 2021), in which produce equipment, raw materials, and metallic mold, our company request our 36 suppliers concluding “Carbon Partnership Certification ” Agreement, to provide us with CDP water-related information for check-ups. In the case of "carbon partnership certification", only 36 companies that have a carbon partnership were selected because they diagnose and certify greenhouse gas emissions, water usage, and other environmental issues.

Impact of engagement, including measures of success

In order to encourage the active participation of the partners, LGD has established carbon partnerships with the suppliers to certify them. Certification screenings (emission reduction target setting, water-related risk factors, etc.) are performed once a year. If a supplier passes the certification audit, it will be provided with 5 bonus points for the purchase process. For a supplier with less cost competitiveness than their competitors, green SCM consulting and carbon partnership benefits can affect the assessment. On the other hand, purchase points are not given for a supplier who failed to pass the certification screening.

LGD evaluated 36 carbon partners among its domestic partner companies for certification in 2021, which all of them passed.

Government regulations and demands for the disclosure of carbon information by domestic and overseas customers are continuing, not only toLGD but also to LGD partners. There are also demands for identifying risks related to climate change. As deterioration in partner companies' competitiveness and performance could lead to deterioration in LGD competitiveness, the Green SCM Consulting and Carbon Partnership, projects to support green growth as environment-friendly win-win activities for partner companies, was implemented in 2021. green SCM consulting company (accumulated 88 companies) was implemented to supplier companies, and carbon partnerships were signed with 36 amongst of all to reinforce the environmental capabilities of the partners. As the quantitative performance, 2 matters related to environmental compliance (water quality/waste) were detected and all are improved. About KRW 3.6 million will be paid as a fine in the circumstance of no improvement action, however the avoidance of the circumstance was available through advance measures.

To manage ESG risks of its supply network more effectively, LGD improved its evaluation system for partner companies’ ESG management to be able to check the key partner companies’ compliance with the ESG rules for the supply network at least once a year. The evaluation process starts with target selection, followed by self-diagnosis (SAQ) and on-site inspection by a third party. The partner companies provided answers to the RBA Facility SAQ, and, as a result, nine partner companies were categorised into the high-risk group.

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

3.6

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

Currently, LG Display is not seeking to receive the Energy Star certification. However, the company reduces power consumption and greenhouse gas emissions for LG Display panel production as per the client companies' requests so that they can receive the Energy Star certification for their products equipped with LG Display panels. The selected engagement targets are all client companies that require the US Energy Star certification.

Impact of engagement, including measures of success

Although the client companies have different requirements, LG Display submits information of fluorine-based greenhouse gases in its LCD products to the US EPA. The submitted information includes reduction targets (processes, gasses), reduction goals, emission levels, reduction amount, calculation methods and more. Once this information is submitted to the US EPA, it is deemed that the client engagement has been successfully carried out.

C12.2

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

Yes, climate-related requirements are 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

Greenhouse gas emission level calculation

Description of this climate related requirement

For the active participation of partner companies, LG Display establishes carbon partnerships with its partner companies and carries out the certification process. The evaluation for certification is held once every year. (Evaluation items include yearly energy goal and energy-saving goal).

% suppliers by procurement spend that have to comply with this climate-related requirement

12.4

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

12.4

Mechanisms for monitoring compliance with this climate-related requirement

Certification

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

Other, please specify

Partner companies that fail the evaluation for carbon partnership certification do not earn the five additional points for bidding)

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

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

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)

1.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

LG Display reviews and evaluates risks on all environment management strategy and GHG/energy-related agendas including climate change engagement activities and climate change counter strategy through ESG Environment Team. Through participating in various engagement activities including public hearings and policy meetings, the ESG Environment Team reports the results to CEO on a monthly or quarterly basis and shares with the employees through company website/ email. Goals for engagement activities are established to minimize financial loss and damage in corporate image, and to find new business opportunities; necessary company-wide countermeasures are established and performed when needed.

The climate change response department establishes and implements an action plan for greenhouse gas performance and reduction, and applies KPIs related to the achievement of company-wide energy reduction targets as performance indicators to encourage voluntary participation of employees and to lead engagement activities consistent with the company strategy.

As indirect performance, LGD provides consulting every year to the partners (greenhouse gas overview, emission calculation, and reduction ideas) through Green SCM.

LGD manages the climate change-related issues integrated into multi-disciplinary company-wide risk identification, assessment, and management process, and reviews and establishes mid- to long-term climate change strategies based on this.

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?

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

Other, please specify

Korea ETS

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

Act on the Allocation and Trading of Greenhouse-Gas Emission Permits stipulates matters regarding the assignment, revocation, trading, etc. of the greenhouse gas emission rights in Korea.

Policy, law, or regulation geographic coverage

National

Country/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

With the start of Greenhouse Gas Emission Trading Scheme, LG Display attended public hearings, meetings and permanent consultative bodies and presented opinions as a company subject to the
Greenhouse Gas Emission Trading Scheme. In addition, LG Display participated as an advisor on laws relating to the trading scheme.

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

LG Display requested an estimation of potential GHG reduction in the display industry and the consideration of fairness among industries with regards to the reduction of rates. LG Display analyzed potential reductions and recommended experts from the industry for setting reduction targets for the nation's Post 2020 initiative. Provision: In case of an emission increase due to unexpected expansion of facilities under Article 16 (1-1), the government will allocate additional emissions to the enterprise after confirming the performance of newly generated emissions (one year after operation) Problem: 100% of additional allocation by new facilities is not provided as actual emissions is included in the performance of newly generated emissions Recommendation: Acknowledge 100% additional allocation only for new facilities at the government's additional calculation standards, and delete mandatory reduction requirement.

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

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization 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 consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We are attempting to influence them to change their position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

KDIA attended meetings on domestic emissions trading, representing companies. KDIA presented various opinions, including
requests for the verification of business-as-usual and potential reduction amounts and the consideration of the fairness of the
allocation and reduction rate for each type of business for the first planning period (2015-2017). In addition, KDIA disclosed its
position and information of the Korean display industry.
To secure sufficient quantities(REC,etc) to purchase new and renewable energy and supply reasonable prices to minimize the increase in electricity operating cost were suggested in 2020.
LG Display contributed to KDIA's setting its position representing the Korean display industry, by providing basis and rationale for KDIA's opinions through relevant information and data. LG Display will continue to monitor foreign policies, respond to climate change, and develop new technologies, and also provide relevant information when KDIA expresses its position.
In the contrary, there are cases where government response activities are conducted at the association level by making suggestions and proposals to the industry association on government regulatory difficulties. Along with the Korea Display Council in 2019, the display industry submitted opinions on changes in calculation formula and errors in statistics numbers in order to become a free allocation industry not as a paid allocation.

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

500,000,000

Describe the aim of your organization's funding

LG Display pays its allotments for operation of the Committee for Environmental Safety under Korea Display Industry Association and takes part in the shared efforts (making proposals on improving regulations, etc.) to execute the climate change policies and gathers information on global trends through seminars and other events.

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

Complete

Attach the document

Quarter Report(2022).pdf

Page/Section reference

quarter report(2022) file 204page

Content elements

Strategy
Emissions figures
Emission targets

Comment

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

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, but we plan to do so within the next 2 years

C15.3

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

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

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

C15.5

(C15.5) 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

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Other, please specify Biodiversity Activity case	Growing Acorns' to Preserve Biodiversity(June to November) Provided 200 employees and their children with the opportunity to raise acorns along with environmental education through the non-contact family volunteer activity of 'Growing

C16. Signoff

C-FI

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

C16.1

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

	Job title	Corresponding job category
Row 1	The CEO is the highest director of ESG management and serves the role of handling climate change regulation issues, establishing measures and including them in the company's business strategies.	Chief Executive Officer (CEO)

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	29,878,043,000,000

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

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

18,092

Uncertainty (±%)

0

Major sources of emissions

stationary combustion and process emissions

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.9

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Acer Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

42,771

Uncertainty (±%)

0

Major sources of emissions

externally supplied electricity /stem/heat

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
0.9

Unit for market value or quantity of goods/services supplied
Other, please specify
km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member
Acer Inc.

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
1,936

Uncertainty (±%)
0

Major sources of emissions
purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified
No

Allocation method
Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
0.9

Unit for market value or quantity of goods/services supplied
Other, please specify
km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member
Dell Technologies

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
151,249

Uncertainty (±%)
0

Major sources of emissions
stationary combustion and process emissions

Verified
No

Allocation method
Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
7.2

Unit for market value or quantity of goods/services supplied
Other, please specify
km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member
Dell Technologies

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

357,564

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

7.2

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Dell Technologies

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

16,184

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

7.2

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

HP Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

100,554

Uncertainty (±%)

0

Major sources of emissions

stationary combustion and process emissions

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

4.8

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

HP Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

237,718

Uncertainty (±%)

0

Major sources of emissions

externally supplied electricity /stem/heat

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

4.8

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

HP Inc

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

10,760

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

4.8

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Lenovo Group Limited

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

51,089

Uncertainty (±%)

0

Major sources of emissions

stationary combustion and process emissions

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

2.4

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Lenovo Group Limited

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

120,779

Uncertainty (±%)

0

Major sources of emissions

externally supplied electricity /stem/hea

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

2.4

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Lenovo Group Limited

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

5,467

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified
No

Allocation method
Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
2.4

Unit for market value or quantity of goods/services supplied
Other, please specify
km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member
Microsoft Corporation

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
11,031

Uncertainty (±%)
0

Major sources of emissions
stationary combustion and process emissions

Verified
No

Allocation method
Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
0.5

Unit for market value or quantity of goods/services supplied
Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Microsoft Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

26,077

Uncertainty (±%)

0

Major sources of emissions

externally supplied electricity /stem/heat

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.5

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Microsoft Corporation

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,180

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.5

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

4,377

Uncertainty (±%)

0

Major sources of emissions

stationary combustion and process emissions

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.2

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

10,347

Uncertainty (±%)

0

Major sources of emissions

externally supplied electricity /stem/heat

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.2

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

468

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.2

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Visteon

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

23

Uncertainty (±%)

0

Major sources of emissions

stationary combustion and process emissions

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.001

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Visteon

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
54

Uncertainty (±%)
0

Major sources of emissions
externally supplied electricity /stem/heat

Verified
No

Allocation method
Allocation based on area

Market value or quantity of goods/services supplied to the requesting member
0.001

Unit for market value or quantity of goods/services supplied
Other, please specify
km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member
Visteon

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
2

Uncertainty (±%)

0

Major sources of emissions

purchased goods&serviced, upstream transportation&distribution, business travel, downstream transportation&distribution, processing of sold product

Verified

No

Allocation method

Allocation based on area

Market value or quantity of goods/services supplied to the requesting member

0.001

Unit for market value or quantity of goods/services supplied

Other, please specify

km2

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

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