TCFD Report

2025

TRUE DISPLAY
For A Sustainable Future

LG Display

About This Report

Overview

This report is LG Display's 2025 TCFD Report. LG Display has released Sustainability Reports and ESG Reports to disclose information on our response to climate change since 2021. Beginning this year, we are publishing a separate TCFD Report to strengthen our information disclosure.
This report aims to share with various stakeholders the activities and achievements we have pursued over the past year to contribute to the transition toward a carbon-neutral society.

Reporting Frameworks

The framework of TCFD(Task Force on Climate-related Financial Disclosures) is a Climate-related Financial Disclosures, developed by TCFD, established by the Financial Stability Board(FSB), to help organizations that provide financial disclosures to easily adopt and be internationally recognized. The TCFD recommends that organizations set and disclose climate-related information across four key areas in business operations : (1) Governance, (2) Strategy, (3) Risk Management, and (4) Metrics and Targets.
This report includes company-wide efforts to transparently disclose information across these four areas in accordance with the TCFD framework and to actively respond to climate-related issues.

Reporting Period and Boundaries

This report primarily covers LG Display's domestic operations(Seoul, Magok LG Science Park, Paju, and Gumi). It also includes information on its overseas sites(Guangzhou, Nanjing, and Yantai(China), and Haiphong(Vietnam) representing of its business activities.
The report details the main ESG management achievements from January 1 to December 31, 2024. Quantitative performance data spanning more than three years is disclosed on the company's website to provide insights into trends. Some achievements also include results from the first half of 2025.

Inquiries Regarding the Report

More information about LG Display can be found on our website at www.lgdisplay.com. For any inquiries regarding the TCFD Report, please contact us using the information below.

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Interactive PDF User Guide

2025 LG Display TCFD Report has been published as an interactive PDF, including features such as navigation to relevant pages within the report and direct links to associated webpages.

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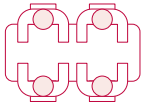
OVERVIEW

Main Contents

Reporting Framework

GOVERNANCE

LG Display reviews its strategies and direction for responding to climate change through semiannual meetings of the ESG Committee.
Under the management and supervision of the ESG Management Council, the company appoints a Champion and establishes an implementation organization in the climate response area to carry out related tasks.

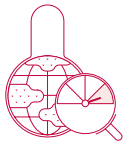


STRATEGY

LG Display has set targets of achieving net-zero emissions by 2050 and is actively implementing strategic tasks to reach this target.
In alignment with the Paris Agreement and climate-related public policies, we are striving to attain carbon neutrality.

RISK MANAGEMENT

LG Display place a risk management process with the aim of seamless management and proactive response in the face of climate change risk. The risk management process is carried out in the following sequence :
① Identification of Risks and Opportunities,
② Assessment of Financial Impacts,
③ Establishment of Response Measures, and
④ Implementation of Response Measures.



METRICS AND TARGETS

LG Display uses key indicators such as GHG emissions, renewable energy usage, and water reuse rate to manage its response to climate change.

2024 Key Performance

CDP Climate Change

2016-2024

'Carbon Management Sector Honors'
IT Sector Honors
for 9 consecutive years

GHG Emissions Reduction

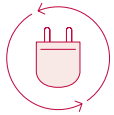
2024

GHG Emissions
Reduction compared to 2018
Reduction by 43%

Renewable Energy Transition Rate

2024

Company-wide electricity consumption
39% Transition



Water Reuse Rate

2024

Domestic Water Reuse Rate Target
74% Achievement

GOVERNANCE

Climate Change Governance System

Management and Monitoring by Board of Directors

In April 2021, LG Display established the ESG Committee as the highest decision-making body to deliberate and approve ESG policies and strategies, including those related to climate change. Through this committee, the company manages and supervises the creation of customer-oriented eco-friendly value and the overall operation and direction of ESG, including climate change. The ESG Committee consists of four independent directors and one inside director(the CEO), forming a transparent and sound decision-making system centered on a board of directors with independence, expertise, and diversity. The committee holds regular meetings once every half year. As the top decision-making body, the ESG Committee sets mid- to long-term goals for ESG management, reviews plans, implementation performance, major ESG-related risks and response directions, and makes decisions on promotion strategies.

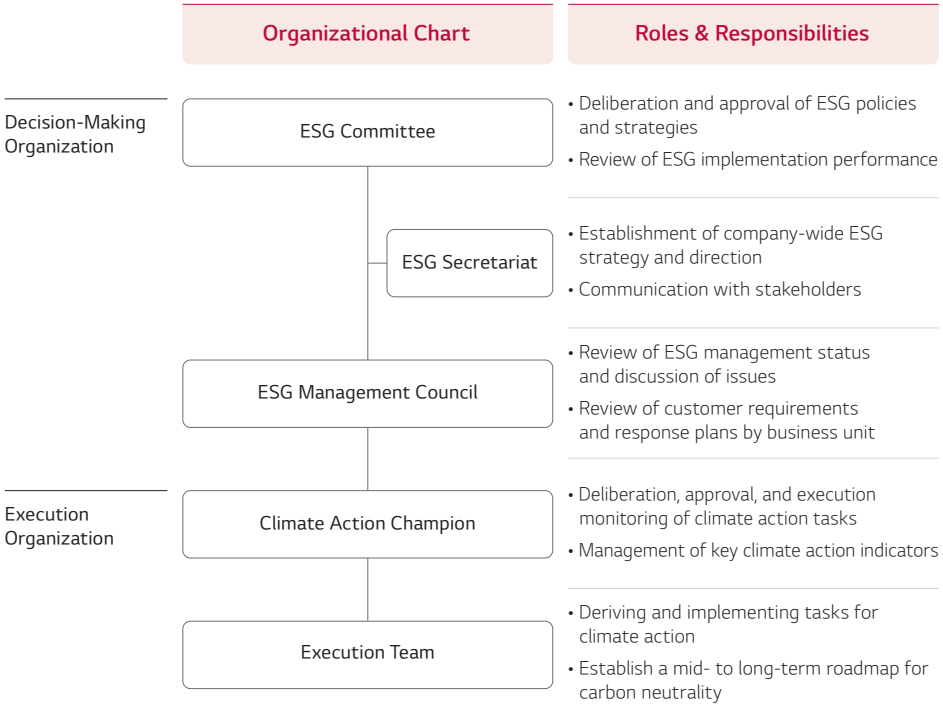
In April 2023, through the deliberation and approval of the ESG Committee, LG Display declared its commitment to achieving carbon neutrality by 2050. To achieve this 2050 carbon neutrality goal, the company has established a mid- to long-term carbon reduction roadmap and is currently implementing tasks such as developing greenhouse gas reduction technologies, reducing energy consumption, and cutting greenhouse gas emissions. Going forward, LG Display will continue to strengthen the board's management and supervision, including analysis of climate change risks and opportunities.

Roles and Responsibilities of Management

The Climate Action Champion is responsible for continuously reviewing and managing climate-related risks and opportunities to achieve net-zero emissions by 2050. To reach the goal of reducing GHG emissions, the ESG Management Council has set the GHG emissions and renewable energy transition as key indicators of climate action and held in-depth discussion. Climate-related issues are reviewed and reported to the ESG Committee, and decisions made are included in business plans and company policies for execution. In addition, LG Display prioritizes climate-related risks and opportunities and performs climate change materiality assessments that evaluate the environmental, social, and financial impacts that are relevant to our business. Going forward, management will strive to address climate change risks and discover new opportunities to leverage them for value creation.

Governance Framework Diagram

LG Display has established the governance structure to ensure transparent and effective management of climate change response.



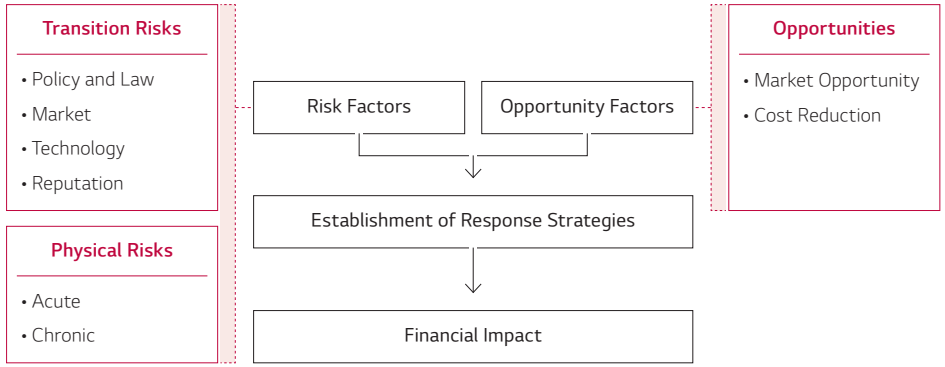
STRATEGY

Analysis of Climate-Related Risks and Opportunities

Identification of Risks and Opportunities

Climate risk is no longer an abstract, future concern but a present reality that governments, businesses, and individuals should put their hands together to address and a critical factor influencing corporate value. Severe natural disasters driven by climate change have a direct impact on global asset prices, productivity, and overall supply chains and adds to the environmental costs and burdens faced by companies due to increasingly strict environmental regulations across the world. As the concern over climate change continues to grow, so too does the attention from consumers and government regulations regarding corporate climate action. Furthermore, growing number of investors are also paying closer attention to whether companies are effectively managing potential climate risks and whether such risks are appropriately included in their current valuations. LG Display is providing swift and effective response by detecting and evaluating both internal and external climate risks and opportunities.

The company categorizes the impacts of climate change into three areas : Transition risks, Physical risks, and Opportunities. As both risks and opportunities can significantly affect our business, LG Display is striving to clearly identify our financial implications by performing scenario analyses and develop corresponding action plans for implementation.



① Transition Risks

Risks associated to transitioning to a lower-carbon economy

Changes in Policy and Law	Stricter regulations in line with carbon neutrality goals
Market	Growing consumer demand for eco-friendly products
Technology	Industry transformation driven by new technologies such as EV and renewable energy
Reputation	Possibility of facing negative evaluations from investors and consumers when a company neglects ESG management

② Physical Risks

Risks directly caused by climate-induced natural phenomena

Acute	Damages from short-term natural disasters such as typhoons, floods, and drought
Chronic	Risks from chronic environmental changes such as sea level rise and long-term temperature increases

③ Opportunities

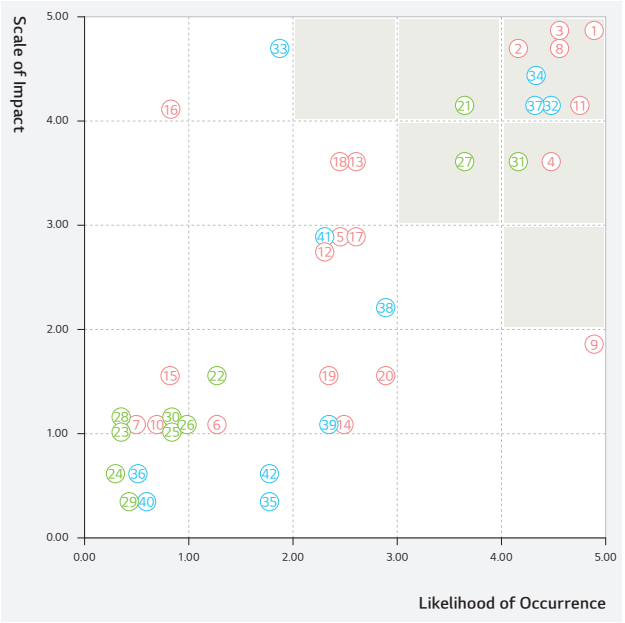
Positive business opportunities arising from climate change response

Market Opportunities	Sales increase in eco-friendly products with growing consumer interest in sustainability
Cost Saving	Operational cost reduction led by improved energy efficiency

Analysis of Climate-Related Risks and Opportunities

Climate Materiality Assessment

In 2025, LG Display refined its key climate risks and opportunities by systematizing our assessment process for climate risks and opportunities. As a result of the identification and evaluation conducted by the dedicated climate action team, the top 12 factors with the highest likelihood and impact were ultimately identified as climate risk and opportunity to LG Display.



Transition Risks	Physical Risks	Opportunities
1 Strengthening of GHG Emissions Regulations and Policies	21 Heatwaves	32 Establishment of a production system for minimizing carbon emissions
2 Increased Demand for Climate Change Disclosure	22 Typhoon	33 Improvement of energy efficiency at business sites
3 Supply Shortages Due to Increased Demand for Renewable Energy	23 Flood	34 Increase Water Use Efficiency
4 Continued Increase in Industrial Electricity Rates	24 Wildfire	35 Transition to renewable energy for electricity used at business sites
5 Stricter environmental(air, water, and other pollution) emission regulations	25 Drought	36 Expanded opportunities to utilize government support policies
6 Taxation and trade restrictions on carbon-intensive products	26 Cold wave	37 Investment in Development of Energy-Efficient Products
7 Potential increase in climate-related legal disputes	27 Rise in average temperatures	38 Reduction of product carbon footprints
8 Costs incurred for introducing carbon reduction technologies and replacing equipment	28 Changes in precipitation patterns	39 Creation of business opportunities by leveraging climate-related market changes
9 Costs for developing high-efficiency products	29 Sea level rise	40 Diversification of raw material sourcing to enhance climate resilience
10 Decreased product demand due to changes in customer and market preferences	30 Yellow dust	41 Utilization of green energy and emissions trading schemes
11 Increased Customer Demand for Carbon Neutrality	31 Water stress	42 Creating new demand and responding to changing consumer trends through technological innovation
12 Rising raw material cost pressures driven by eco-friendly policies		
13 Rise in carbon reduction cost burdens on customers and partners		
14 Barriers to entering new markets due to climate change issues		
15 Reputation and brand value decline due to climate change issues		
16 Stigma of GHG-intensive industry		
17 Increasing need for carbon emissions regulations and low-carbon technology transitions across raw and subsidiary materials, equipment, and logistics within the supply chain		
18 Mandatory carbon emissions reduction by product of each industry		
19 Stricter regulations on supply chain management and supplier audits		
20 Growing demand for sustainable and low-carbon products		

* Selected issues where the combined score of Scale of Impact and Likelihood of Occurrence was 7 points or higher.

Analysis of Climate-Related Risks and Opportunities

Financial Impacts and Response Plan

LG Display classifies the impacts of key factors-identified through its materiality assessment of climate risks and opportunities—into short- and medium-to-long-term horizons and presents financial impacts and response plan for each factor as below.

Category		Type	Impact Period		Impact Category (Value Chain)			Financial Impact	Countermeasures
			Short-term	Mid to Long-term	Upstream (Raw Materials, Supplier)	LG Display (Purchase, Production)	Downstream (Use, Disposal)		
Transition Risks	Policy and Regulation	① Strengthening of GHG Emissions Regulations and Policies	○	○	○	○	○	• Increased costs for purchasing emission credits due to stricter GHG emission trading regulations	• Participate in emissions trading through reasonable transactions based on continuous monitoring of emission allowance prices • Establishment and implementation of GHG reduction targets
		② Increased Demand for Climate Change Disclosure		○	○	○	○	• Increased cost for building and certifying data in response to global climate disclosure	• Improve operational efficiency by establishing domestic and international climate disclosure systems
		③ Supply Shortages Due to Increased Demand for Renewable Energy	○	○	○	○		• Increased procurement costs due to insufficient renewable energy generation	• Diverse portfolio composition for expanding the transition to renewable energy • Review direct power purchase agreements to ensure stable mid- to long-term renewable energy supply
		④ Continued Increase in Industrial Electricity Rates	○	○	○	○		• Rising product costs due to increased electricity expenses	• Reduce electricity consumption through energy-saving initiatives
	Technology	⑧ Costs incurred for introducing carbon reduction technologies and replacing equipment		○		○		• Increased costs for converting manufacturing facilities to low-carbon processes	• Develop alternative technologies using low-carbon and environmental substitute gases
	Market	⑪ Increased Customer Demand for Carbon Neutrality	○	○		○	○	• Revenue decline due to reduced product demand caused by failure to meet customer expectations	• Develop and expand environmental products utilizing low-carbon technologies
Physical Risks	Acute	㉑ Heatwaves		○	○	○		• Increased management costs due to reserve power shortages and overheating of transmission facilities	• Operate uninterruptible power supply systems capable of independent power generation in case of power risks
	Chronic	㉗ Rise in average temperatures		○	○	○		• Increased operating costs due to higher electricity usage by equipment such as refrigeration unit	• Reduce power consumption by improving refrigeration unit efficiency • Enhance energy efficiency by diagnosing site equipment and production processes
	Acute	㉛ Water stress		○	○	○		• Increased product costs due to water shortages caused by changes in precipitation	• Strengthen and invest in initiatives to increase water reuse
Opportunities	Technology	㉜ Establishment of Production System Minimizing Carbon Emissions	○	○		○		• Generate revenue by selling surplus emission allowances through the adoption of low-carbon processes	• Timely investment in greenhouse gas reduction facilities • Implement activities to reduce the use of process gases
		㉞ Increase Water Use Efficiency	○	○		○		• Reduce water resource management costs through operational efficiency	• Identify and implement water-saving initiatives by monitoring usage and optimizing process conditions
		㊲ Investment in Development of Energy-Efficient Products		○	○	○	○	• Increase revenue by meeting growing demand for environmental products	• Develop high-efficiency display technologies such as LTPO[1], OLED[2]

1) LTPO : Low-Temperature Polycrystalline Oxide

2) OLED : Organic Light Emitting Diode, Self-lighting display without an external light source

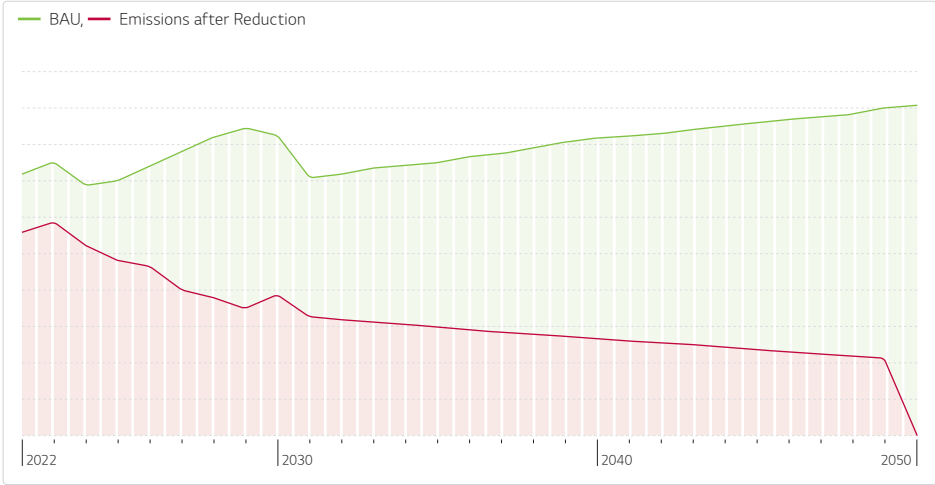
Climate Change Scenario

Transition Risks

The scenario for transition risk utilized the NGFS[1)]'s Net Zero 2050 scenario.
In December 2020, the Republic of Korea declared its 2050 carbon neutrality vision both domestically and internationally to join the global response to the climate crisis, announced a carbon neutrality scenario, and revised and enacted relevant laws and regulations. Meanwhile, global carbon regulations are being strengthened, such as the introduction of the EU Carbon Border Adjustment Mechanism and requirements for carbon emissions disclosures. Accordingly, LG Display analyzed its situation using the NGFS Net Zero 2050 scenario to align with domestic and international climate change response trends and stakeholders' demands for carbon reduction. The organizational boundary for carbon emissions was analyzed only for domestic and overseas business sites.
Based on production plans that consider the domestic and international environmental and technological characteristics of the display industry, the company projected expected emissions(BAU[2)]) through 2050, assuming a decrease in LCD production and an increase in OLED production. LG Display's carbon emission structure is categorized into process gases(F-GHG, N_2O) and electricity. Specialized teams in each field have specified reduction tasks and set targets, taking into account the technological level of process gas reduction and power-saving technologies. For process gas emission reduction, the company plans to continuously develop and apply high-efficiency scrubbers by 2050, considering the reduction technology level in the semiconductor and display industries as well as research and development trends in government-affiliated research institutes and academia.

LG Display is investing resources into technology development and investment to achieve carbon neutrality by 2050. Since 2018, we have invested in F-Gas reduction equipment and intend to continue investing in the development and implementation of emission reduction technologies. In 2024, approximately 39% of the total electricity consumption in our company was sourced from renewable energy, and LG Display plans to gradually increase the conversion rate.
In response to the growing demand for eco-friendly products, LG Display is strengthening our low-carbon and eco-friendly technologies to meet the expectations of stakeholders, including customers, consumers, investors, and NGOs. To this end, we evaluate carbon emissions at each Life Cycle Stage from a product's entire lifecycle perspective. In addition, LG Display has obtained carbon footprint certification for the high-end LCD panels for IT applications and automotive OLED panels, as well as carbon-reduction certification for LCD panels for high-end laptops.

Path to Carbon Neutrality



1) NGFS : Network for Greening the Financial System,
2) BAU : Business As Usual

Climate Change Scenario

Physical Risks(Heatwaves, Average Temperatures)

Climate change has been causing the rise of global average temperatures leading to more frequent natural disasters, such as heatwaves. Based on the IPCC[1] Sixth Assessment Report's SSP[2], LG Display identified heatwaves and rising average temperatures as highly relevant factors for our operations from 2021 to 2050 and analyzed the risks associated with heatwaves and temperature increases under both the SSP1-2.6 and SSP5-8.5 scenarios. Additionally, climate change scenarios were calculated for each business site using the national standard climate change scenarios of Korea Meteorological Administration. According to the analysis on the number of annual heatwave days under the SSP5-8.5 scenario, Paju site will see 49.1 days of heatwave in 2050, 18.4 more days. The average temperature is also expected to rise by 1.9° C by 2050. As a result, such increase in heatwave days and average temperature is projected to cause higher electricity consumption from cooling systems used in the manufacturing process.

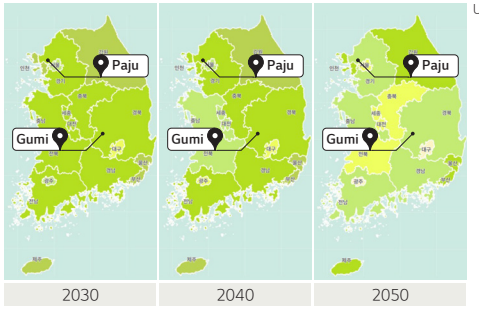
With the rise of average temperatures, energy consumption from cooling systems and manufacturing equipment accounts for an increasingly significant portion of the plant's annual operating costs. For this reason, we consider temperature increase as a major risk factor. In particular, external temperature rises during the summer such as heatwaves and tropical nights directly lead to higher electricity costs for cooling system usage in production facilities. While higher average temperatures may slightly reduce heating costs, if the external temperature increases by 1.9°C and persists for an entire year, annual electricity consumption for heating and cooling at the Paju and Gumi sites is estimated to increase by approximately 7.4%, with heating demand decreasing by 9.9%, resulting in an estimated additional cost of KRW 8.42 billion per year. Under the SSP1-2.6 scenario, if the external temperature increases by 0.6°C for one year, electricity consumption is projected to increase by 2.0%, with heating demand decreasing by 3.4%, resulting in an estimated additional cost of KRW 2.16 billion per year.

LG Display is performing energy-saving activities such as investing in high-efficiency equipment, optimizing production processes, and enhancing operational efficiency through DX-based systems and continuously expanding the use of renewable energy to mitigate the impact of physical risks.

1) IPCC(Intergovernmental Panel on Climate Change) : This is an international body under the United Nations that aims to assess the global risks posed by climate change and formulate appropriate countermeasures

2) SSP : Shared Socioeconomic Pathway
- SSP 1-2.6 : This scenario is formulated on the premise that the progress in renewable energy technologies will facilitate the decrease in fossil fuel usage and realization of a sustainable, environmentally friendly economic growth
- SSP 5-8.5 : This scenario is derived under the assumption that the rapid development of industrial technologies is considered important, which facilitates sprawling development, especially around cities

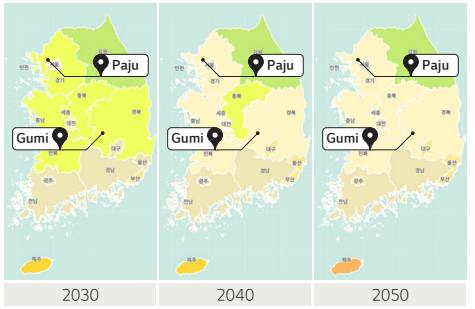
Analysis of Heatwave Frequency Based on SSP Scenario



SSP 5-8.5(Domestic) : Korea Meteorological Administration(KMA) Climate Information Portal

Year (Period)	Scenario	Paju Site	Gumi Site
2021~2025	SSP 1-2.6	26.7	38.6
	SSP 5-8.5	30.7	43.8
2030	SSP 1-2.6	26.0	41.4
	SSP 5-8.5	28.9	43.3
2040	SSP 1-2.6	35.7	49.2
	SSP 5-8.5	44.3	55.1
2050	SSP 1-2.6	32.4	48.6
	SSP 5-8.5	49.1	61.2

Analysis of Average Temperatures Based on SSP Scenario



SSP 5-8.5(Domestic) : Korea Meteorological Administration(KMA) Climate Information Portal

Year (Period)	Scenario	Paju Site	Gumi Site
2021~2025	SSP 1-2.6	13.1	14.0
	SSP 5-8.5	13.2	14.1
2030	SSP 1-2.6	13.2	14.2
	SSP 5-8.5	13.5	14.4
2040	SSP 1-2.6	13.6	14.6
	SSP 5-8.5	14.2	15.1
2050	SSP 1-2.6	13.6	14.6
	SSP 5-8.5	15.1	15.9

Climate Change Scenario

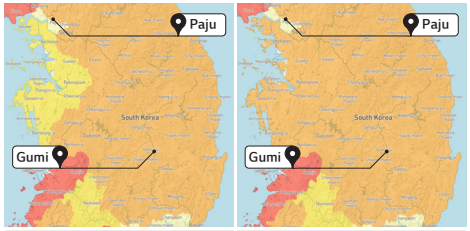
Physical Risks(Water Stress)

Water stress refers to the ratio of total water demand to available water supply. When the risk level is high, it can lead to water shortages at manufacturing sites, potentially causing production suspensions and quality degradation. Considering the display industry's high water consumption, LG Display analyzed the exposure to water stress at the domestic(Paju and Gumi) and overseas business sites using the Aqueduct Water Risk Atlas provided by the WRI[1]. We have classified the water stress levels of the base year(1979-2019) and of 2030 and 2050 into five categories : 'Low,' 'Low-medium,' 'Medium-high,' 'High,' and 'Extremely high.' The scenario utilizes SSP[2] 1-2.6 and SSP 5-8.5, which is the physical risks defined in the Aqueduct Water Risk Atlas.

The business site where the water stress level changes in 2030, compared to the base year level, is the site in Paju. Its 'Low-medium' level in the base year is projected to rise to 'Medium-high' in 2030. The water stress level of the Yantai plant, one of LG Display's overseas sites, is classified as 'Extremely high' from the base year through 2050. However, due to the relatively low water consumption, the site is putting more effort to reduce water for water resource management.

To improve water use efficiency, LG Display has introduced water reuse systems. We are exploring various strategies to secure and manage water resources to ensure supply stability, while conducting water conservation improvement activities and minimizing consumption. Through these efforts, LG Display aims to respond effectively to water stress scenarios.

Water Stress Analysis(Domestic)

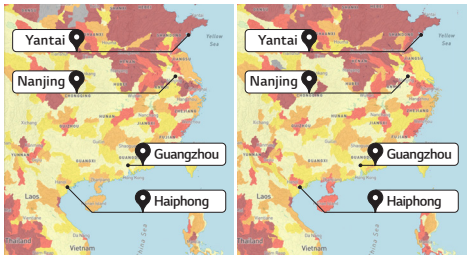


Base Year | 2050

SSP 5-8.5(Domestic) : World Resources Institute

Year (Period)	Scenario	Paju Site	Gumi Site
1979~2019	-	Low-medium	Medium-high
2030	SSP 1-2.6	Medium-high	Medium-high
	SSP 5-8.5	Medium-high	Medium-high
2050	SSP 1-2.6	Medium-high	Medium-high
	SSP 5-8.5	Medium-high	Medium-high

Water Stress Analysis(Overseas)

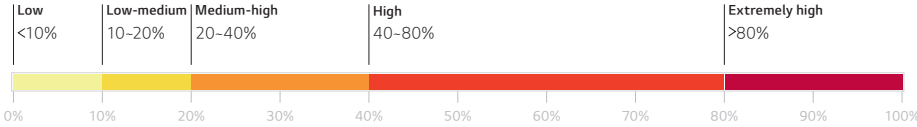


Base Year | 2050

SSP 5-8.5(Overseas) : World Resources Institute

Year (Period)	Sce-nario	Nanjing Site	Guangzhou Site	Yantai Site	Haiphong Site
1979 ~2019	-	Low	Low	Extremely high	Low-medium
2030	SSP 1-2.6	Low	Low	Extremely high	Low-medium
	SSP 5-8.5	Low	Low	Extremely high	Medium-high
2050	SSP 1-2.6	Low	Low	Extremely high	Low-medium
	SSP 5-8.5	Low	Low	Extremely high	Low-medium

Water Stress



1) WRI : World Resources Institute

2) SSP : Shared Socioeconomic Pathway
- SSP 1-2.6 : This scenario is formulated on the premise that the progress in renewable energy technologies will facilitate the decrease in fossil fuel usage and the realization of a sustainable, environmentally friendly economic growth
- SSP 5-8.5 : This scenario is derived under the assumption that the rapid development of industrial technologies is considered important, which facilitates sprawling development, especially around cities

Key Activities to Reduce GHG Emissions

Development of GHG Reduction Scrubbers[1)]

Since 2018, LG Display has been investing in and installing GHG reduction equipment at our business sites to lower emissions from manufacturing processes. Additionally, LG Display has been improving reduction efficiency by expanding the use of plasma scrubbers, which can reduce up to 90% of Fluorinated Greenhouse Gas(F-GHG[2)]) emissions. We are also collaborating with deposition equipment manufacturers to develop reduction technologies utilizing catalysts(Heat/Catalyst) so that we can mitigate N_2O[3)] emissions from the deposition process, which are difficult to reduce with existing GHG reduction equipment.

In 2024, LG Display completed the production of one unit of reduction system for mass production validation and the installation of it at our site. Starting from 2025, we plan to carry out a verification and evaluation of the reduction effectiveness. By 2030, LG Display aims to complete the development of a technology capable of reducing 80% of emissions(N_2O) generated from its deposition processes and gradually expand the application of the technology across the manufacturing sites to contribute to achieving carbon neutrality by 2050.

GHG Reduction by Scrubbers

Chamber → Scrubber(GHG REduction)

Chamber Type	Target GHG	Present: Impact of Scrubber Application	2030: High-efficiency Scrubbers
D/E[4)]	SF_6, CF_4	90% Reduction	95% Reduction
CVD[5)]	N_2O	-	80% Reduction

1) Scrubber : Equipment used to remove harmful gases generated during display manufacturing processes
2) F-Gas(Fluorinated gases) : Refers collectively to gases containing fluorine(F), which are included in the six greenhouse gases regulated by the Kyoto Protocol(carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride)
3) N_2O : Nitrous Oxide
4) D/E : Dry Etching
5) CVD : Chemical Vapor Deposition

Development of Low-GWP[6)] Process Gases

The display manufacturing process involves numerous procedures for depositing inorganic films and patterning for the protection of TFT[7)] and OLED[8)] devices, which utilize process gases with a high GWP. Currently, the process gases LG Display is using have been selected as suitable for etching/deposition/cleaning process of display production from among gases used and verified in the semiconductor industry. It takes a lot of time to develop, assess, and apply process gases with plenty of elements that require reviews and verification, such as the properties, toxicity and safety of the gases, as well as sourcing and supply stability, and pricing.

In order to develop process gases with a lower GWP, LG Display has established a collaborative R&D system with academic institutions, research institutes, and gas providers. Through this platform, we have fostered close cooperation across a wide range of R&D areas, from candidate selection through molecular simulation and big data, to the development of synthesis/refining technologies for securing productivity, assessments of equipment application to ensure desired process attributes, and reviews of the supply chain. Our aim is to develop process gases with lower GWP for etching/deposition/cleaning by 2030. A plan has been established to assess these gases in real mass production after 2030. By replacing high GWP process gases with lower GWP process gases, we aim to contribute to reducing GHG emissions and contribute to achieving carbon neutrality by 2050.

Ongoing Company-wide Energy Saving Initiatives

We improving the efficiency of utility manufacturing equipment and optimizing electricity usage in production facilities, led by a dedicated company-wide energy conservation organization. In addition, to support ongoing energy reduction activities, LG Display is optimizing equipment operation through DX-based solutions such as smart controls for chillers. The company is also collaborating with experts to minimize energy consumption in each facility and actively promote energy-saving activities.

6) GWP : Global Warming Potential
7) TFT : Thin Film Transistor
8) OLED : Organic Light Emitting Diode, Self-emissive display that can produce its own light with no light sources

External Achievements in Responding to Climate Change

Leading Global Climate Action

Joining the CDP[1], a globally renowned initiative for environmental data disclosure, LG Display has been awarded the Honors Club in the Climate Change Korea Awards IT sector for nine consecutive years(2016-2024). This recognition is for an approximately 43% reduction in carbon emissions from all business sites in 2024 compared to the levels of 2018, a 39% transition to renewable energy sources for power generation, and excellent leadership in carbon management.

In the area of water management, LG Display was selected as an Excellent Company for five consecutive years(2018–2022) in the CDP Water Security Korea Awards.

Furthermore, in 2023 and 2024, we received a Leadership A- rating in recognition of the excellence in managing water-related environmental impact, based on the public disclosure of mid- to long-term water reuse targets and data on water pollutant emissions.

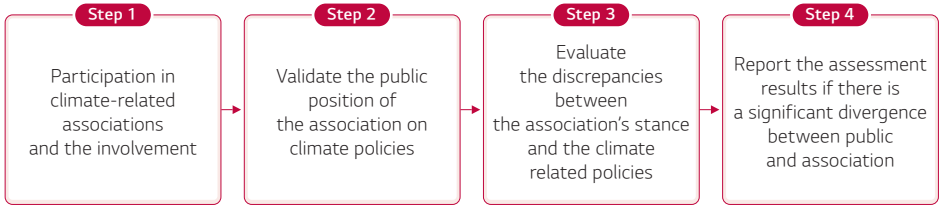
1) CDP : Carbon Disclosure Project

Participation in Domestic and International Environmental Initiatives

As part of our efforts to achieve carbon neutrality by 2050, LG Display has joined KDIA[2] and is actively participating in the Carbon Neutrality Cooperation Group. In collaboration with the association, we co-hosted the Integrated R&D Technology Exchange Forum in July 2024, where we discussed the establishment plan for a certification and evaluation platform for carbon neutrality. Additionally, LG Display hosted a seminar in August 2024 aimed at enhancing the carbon neutrality competitiveness of the display industry and shared progress and results with executives of the Environmental and Safety Subcommittee. These activities contribute to establishing action plans to achieve its carbon neutrality goals and improve energy efficiency of LG Display.

On top of that, LG Display participated in the WDICC[3] in 2024, an ESG committee body among the three major display producers: South Korea, China, and Taiwan, and discussed key agendas regarding the reduction of GHG emissions in the display industry, promoting carbon neutrality, and joint responses to environmental issues such as the reduction of hazardous substance use. We will continue to engage with WDICC and actively join the effort for the international cooperation in mitigating climate change.

KDIA Activity Process



2) KDIA : Korea Display Industry Association

3) WDICC : World Display-device Industry Cooperation Committee

External Achievements in Responding to Climate Change

Carbon Footprint Certification

A carbon footprint refers to the greenhouse gas(GHG) emissions, converted to CO_2 equivalents, that are emitted throughout the lifecycle of a product or service, spanning from raw material extraction to manufacturing, distribution, usage, and disposal. To manage and reduce the total amount of direct and indirect GHG emissions from the manufacturing process of a product, it's necessary to mitigate the carbon footprint. Global verifiers and certification bodies operate systems to certify carbon emissions from the entire product lifecycle in accordance with the international standard ISO14067. In response to this, LG Display ensures the precise measurement of product carbon emissions, leading to the acquisition and maintenance of carbon footprint certification.

High-end LCD Panel for IT Devices[2)]

Acquisition of Carbon Footprint Certification

We have achieved a carbon footprint certification for our high-end LCD(Liquid Crystal Display) panel, which is used in IT devices such as monitors and laptops. TUV Rheinland, a global certification agency, has verified our high-end LCD panel in compliance with ISO14067, an international standard for measuring carbon emissions. This verification led to the issuance of the PCF(Product Carbon Footprint) for the product. LG Display has scrutinized the entire process, from product manufacturing to disposal, to verify carbon emissions. Based on these findings, we've incorporated recycled materials and enhanced transmittance, /resulting in demonstrating emission reduction effects.

High-end LCD Panel for Laptops[1)]

8% Reduction in Carbon Emissions

LG Display became the first company in the display industry to obtain PCR(Product Carbon Reduction) certification from TUV Rheinland, a global testing and certification agency, by achieving carbon emission reductions across the entire product life cycle. With consideration of the environment, recycled and bio-based materials were used from the product design stage; power consumption was reduced in the usage phase, contributing to approximately 8% reduction in carbon emissions.

OLED for Vehicles[3)]

Acquisition of Carbon Footprint Certification

LG Display has independently developed an 'embedding technology for light control film,' which allows the film capable of controlling the direction of light to be embedded in the panel. This breakthrough enhances the visibility of the screen and improves power consumption efficiency. This technology enabled LG Display to demonstrate the carbon emission reduction effect of its automotive OLED products. This significant achievement has led to the acquisition of the PCF (Product Carbon Footprint) from TUV Rheinland, a global certification agency, marking the first such achievement in the OLED for automobiles. In addition, we have incorporated Tandem OLED with high luminance and exceptional durability into all our products. This has allowed us to reduce power consumption by about 40% and extend the product life cycle. Leveraging our unique technological prowess and commitment to eco friendliness, we will continue to develop greener products and expand our range of eco-friendly offerings, thereby minimizing the negative impact of our products on the environment.

1) Certification Period for High-end LCD Panel for Laptops : September 13, 2024 – September 12, 2026

2) Certification Period for High-end LCD Panel for IT Applications : August 22, 2023 – August 31, 2024
3) Certification Period for OLED Panel for Vehicles : November 3, 2023 – November 30, 2024

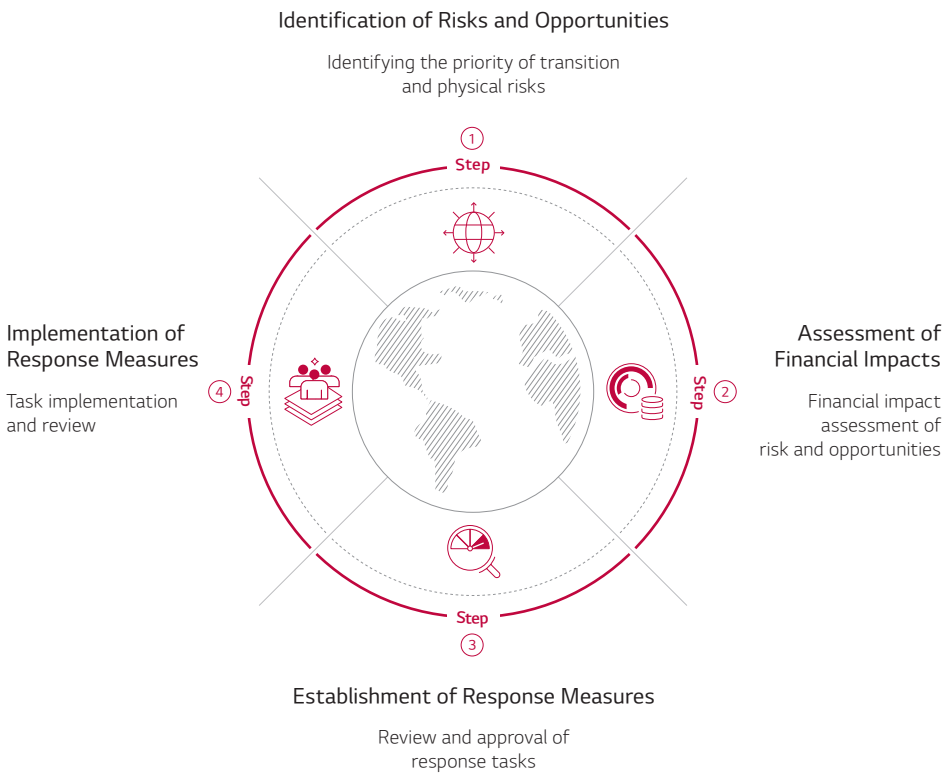
RISK MANAGEMENT

Climate Change Risk Management

Process for Risk Assessment

We are establishing a company-wide process for identifying and assessing climate change risks.
First, we identify climate change risk factors by monitoring changes in laws and regulations, global trends, and stakeholder requirements. Then, we analyze the scale of impact and likelihood of occurrence for these risk factors to identify the priority of their impact on our business. For factors identified as climate change risks and opportunities, we predict the actual impact period and establish a financial impact analysis and response measures for each item. Significant risk matters and their response measures are reported to the ESG Management Council and the ESG Committee for deliberation and approval, and then implemented.Finally, implemented tasks are regularly reviewed to manage risks.
Additionally, to ensure effective climate risk management, LG Display incorporates climate-related indicators—such as GHG emissions and energy reduction—into the KPIs of the management, executives and employees across business units, and provides incentives based on them. The company will continue to strengthen its monitoring and evaluation systems for task implementation and performance in order to manage the impacts of climate risks more effectively and respond accordingly.

Risk Management Procedures



METRICS AND TARGETS

Performance Indicators and Future Goals

Driving Carbon Neutrality by 2050

We has established a carbon neutrality target for 2050 to join global efforts to address climate change. We have developed a roadmap to achieve carbon neutrality by reducing emissions by 53% compared to 2018 levels by 2030, 67% by 2040, and 100% by 2050. Through investments in greenhouse gas reduction equipment in 2024, strengthened company-wide energy-saving activities, and expanded renewable energy transition, LG Display has already reduced greenhouse gas emissions by 43% compared to levels in 2018.

To achieve its 2050 carbon neutrality goal, the company plans to pursue the following activities in the mid- to long-term : ▲ Active participation in and response to climate change-related government policies ▲ Reduction of process gas usage in production equipment and additional investment in reduction facilities ▲ Development and application of high-efficiency emission reduction technologies and low-carbon gas replacement technologies ▲ Development and application of low-power production equipment and utility technologies ▲ External offsets(e.g., carbon credit purchase) ▲ Continuous development of eco-friendly products.

GHG Total Emissions[1)]

Category	Unit	2022	2023	2024
GHG Total Emissions	tCO_2eq	6,572,537	5,873,004	7,920,915

Scope1·2 GHG Emissions

Category			Unit	2022	2023	2024
Scope1		Domestic	tCO_2eq	1,048,030	952,882	1,188,958
		Overseas	tCO_2eq	110,677	103,159	81,758
		Total	tCO_2eq	1,158,706	1,056,041	1,270,716
Scope2	Region-Based	Domestic	tCO_2eq	2,792,652	2,541,355	2,485,045
		Overseas	tCO_2eq	2,359,677	1,362,596	1,318,370
		Total	tCO_2eq	5,152,330	3,903,951	3,803,415
	Market-Based	Domestic	tCO_2eq	2,611,971	2,342,300	1,406,682
		Overseas	tCO_2eq	1,743,524	904,387	935,556
		Total	tCO_2eq	4,355,495	3,246,687	2,342,237

GHG Emissions Management

LG Display has continuously managed both domestic and overseas GHG emissions, energy consumption, and reduction amounts to combat climate change and achieve carbon neutrality, and has established related goals for the mid- to long-term and has been diligently working towards them.

As of 2024, our GHG emission intensity stood at 29.76 tCO_2eq per KRW 100 million, which was calculated based on the sales. Additionally, in 2024, LG Display participated in a Scope3 GHG emissions calculation support program organized by the Ministry of Environment and the Korea Environmental Industry & Technology Institute, contributing to the development of a Scope3 calculation guide for the display industry. Moving forward, we will continue to expand the coverage of Scope3 emissions for further management.

Scope3 GHG Emissions

Category	Unit	2022	2023	2024
Purchased goods and services	tCO_2eq	248,454	447,323	632,902
Capital goods	tCO_2eq	-	379,522	91,939
Fuel and energy-related activities not included in Scope1 or Scope2	tCO_2eq	-	-	501,497
Upstream transportation and distribution	tCO_2eq	2,487	18,328	73,770
Waste generated in operations	tCO_2eq	-	22,300	19,399
Business trip	tCO_2eq	5,144	7,547	6,581
Employee commuting	tCO_2eq	-	5,215	-
Upstream leased assets	tCO_2eq	-	11,768	-
Processing of sold products	tCO_2eq	5,416	5,041	7,758
Use of sold products	tCO_2eq	-	-	1,456,521
Disposal of sold products	tCO_2eq	-	-	3,240
Downstream leased assets	tCO_2eq	-	15,968	53,176
Total	tCO_2eq	261,501	913,012	2,846,784

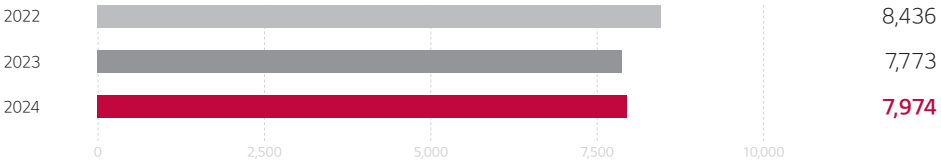
1) The GHG emissions data encompasses Scope1·2·3 and were calculated in accordance with the guidelines of the Korea Emissions Trading Scheme, ISO14064, and the GHG Protocol. A third-party verification was completed for 99.9% of the total emissions (Scope2 emissions were aggregated based upon the location-based approach)

Performance Indicators and Future Goals

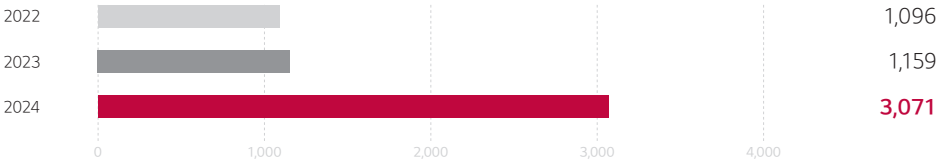
Increased Transition to Renewable Energy

LG Display began transitioning to renewable energy in 2021. Domestic business sites transitioned to renewable energy through Green Premium, and Chinese/Vietnamese business sites transitioned to renewable energy through RECs(Renewable Energy Certificates). In 2022, 13% of the company's electrical energy usage was transitioned to renewable energy, and in 2023, 15%. In 2024, the amount of renewable energy increased to 3,071 GWh, representing 39% of total electricity usage. Going forward, LG Display plans to gradually expand its use of renewable energy by considering various renewable energy options and aims to transit 100% of the electricity used at Chinese/Vietnamese business sites to renewable energy by 2050.

Total Electrical Energy Usage (Unit : GWh)



Renewable Energy Usage (Unit : GWh)



Renewable Energy Use Rate (Unit : %)

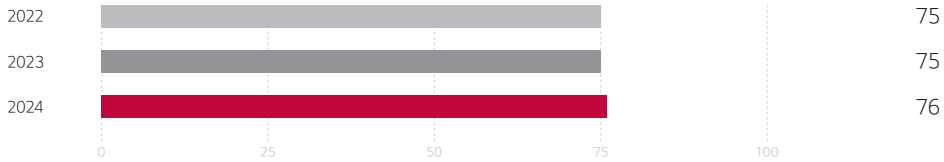
* Based on total domestic and international electricity Usage and renewable energy Usage

Water Reuse Expansion

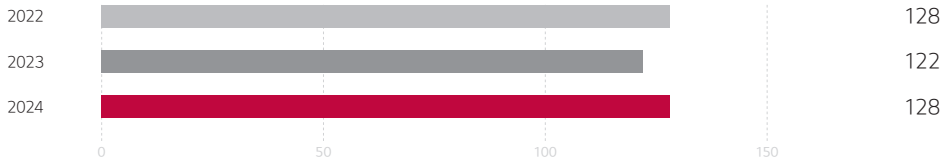
LG Display installed a wastewater reuse system at its business sites to meet the requirements of major customers, and since 2018, has been operating a 'sewage treatment water reuse project' in cooperation with local governments. Through these efforts, the company was able to exceed its 2024 domestic water reuse rate target of 74% based on usage.

In addition, in the case of the Paju plant, the treated wastewater is discharged into the upper reaches of the Manwoocheon Stream and a retention pond, creating a natural ecosystem where various fish species such as minnows, crucian carp, and freshwater eel, which mainly live in second-grade water, live. The plan is to achieve a reuse rate of 87% by 2030.

Water Reuse Rate (Unit : %)



Water Reuse Volume (Unit : million m^3)



* Based on domestic water reuse rate and reuse volume


LG Display