



LG Display
GREEN BOND FRAMEWORK

OCTOBER 2018

1. Introduction

1.1. Background

LG Display Co., Ltd (“LG Display” or the “Company”) is a leading global manufacturer of display panels including LCD and OLED.

The Company began developing TFT-LCDs in 1987 and started mass production in 1995. Today LG Display produces displays for diverse applications such as TV, IT, Mobile, Commercial, Automotive, and OLED Light.

In order to further strengthen its position with cutting-edge technology, the Company executes continuous R&D and investment in next-generation displays such as flexible and transparent displays.

Headquartered in Seoul, Korea, LG Display operates a global network of production plants and sales & marketing offices. With 54,000 employees worldwide¹, the company aims to achieve customer satisfaction based on innovative technology and marketing capability.

LG Display is listed on the Korea Exchange (034220) and the New York Stock Exchange (LPL).

1.2. LG Display's Sustainability Objectives

Recognizing that safety, health, energy, and environment are the key factors for corporate management in its activities, products and services, LG Display is committed to the following to achieve sustainable development and build social trust:

- observe all regulations and international conventions
- strive to build a safety culture based on fundamental values and create a healthy and safe working environment
- contribute to preventing global climate change by optimizing energy use
- develop eco-friendly products, minimizing environmental impacts throughout the whole process from product planning, production, and use to disposal
- provide proactive support for its partners and the community to improve their safety, health, energy and environment

Based on its Green Company Strategy, the Company minimizes the environmental impact of its business activities and undertake various initiatives to fulfil its environmental responsibilities by, for instance,

¹ As of December, 31, 2017

operating an energy management system and participating in carbon/water information disclosure projects.

LG Display's key environment initiatives and commitments are summarized below:

✓ **Eco-friendly Products**

LG Display developed the Eco Label for TV display modules in cooperation with SGS, a global testing and certification organization, for the first time in the industry in 2017. As a result, the Company **obtained the SGS Eco Label certification for OLED TV, IPS Nano Color TV, and Art Glass TV** models through reviews on their **recycling rate, use of hazardous materials, and hazardous materials management system** during development and production cycles.

✓ **Response to Climate Change**

In order to reduce GHG emissions, LG Display has set a **short-term goal of reducing GHG emissions by 12.6% by 2020 from 2014 and a mid to long-term goal of reducing them by 54.6% by 2040**. To this end, the Company make continuous investment to develop low-carbon clean-production technologies to achieve zero greenhouse gas emissions and implement a variety of energy reduction measures.

✓ **Water Usage Reduction and Recycling**

To proactively cope with global water shortage issue, LG Display has been investing hundreds of millions of dollars on wastewater recycling facilities since 2004 to **recycle more than 50% of wastewater** to be used in production and utilities. In addition, in order to improve water reuse rate as well as to reduce water consumption in each business site throughout the entire business process, the Company has set a mid to long-term goal of **increasing the reuse rate by 145% by 2020** and included the water reuse rate in the KPI at its business sites. LG Display has also improved its equipment and process to reduce water consumption while establishing plans to increase the supply capacity and reuse rate by reviewing the water infrastructure.

✓ **Recycling System**

LG Display opened a resource recycling center to efficiently manage the processes from waste generation to final treatment. The wastes are separately managed by types and properties, and the generation and treatment of wastes are managed by the system in real-time. LG Display continuously strives to minimize waste generation and maximize recycling through product weight reduction and raw material usage reduction as well as use of eco-friendly parts and development of various recycling technologies. As an illustration, through the development of waste glass film separation technology, the Company has **achieved a 100% recycling rate of waste glass** while maximizing the reuse of raw materials using pulp regenerators

✓ **Pollution control**

LG Display deploys optimized atmospheric and water pollutant treatment systems specific to the raw materials in each process. It sets its **internal guideline to 50% of legal concentration** and continuously applies new technologies to minimize the pollutants discharge by maximizing their treatment efficiency.

1.3. Rationale for Green Bonds issuance

In line with its goal to become the global leading sustainable display company, LG Display is committed to continuously invest to achieve its Green Company Strategy and remain a pioneer in eco-friendly business operations.

In order to support this ambition, LG Display considers that Green Bonds are an effective tool to channel liquidity into assets which have environmental benefits and thereby contribute to the achievement of the United Nations Sustainable Development Goals (UN SDGs).

LG Display has therefore designed this Green Bond Framework in accordance with the ICMA Green Bond Principles 2018 to provide investors with best-in-class Green Bonds, in line with market practices in terms of transparency, impact reporting and commitments.

2. LG Display Green Bond Framework

LG Display has prepared this Green Bond Framework in accordance with the ICMA Green Bond Principles², and has elected to issue Green Bonds with a particular focus on the following areas:

- Energy Efficiency
- Sustainable water & wastewater management
- Pollution prevention & control
- Eco-efficient and/or circular economy adapted products

The Green Bond Principles are a set of voluntary guidelines which recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuing Green Bonds. In line with the ICMA Green Bond Principles, LG Display's Green Bond Framework is presented through the following key pillars:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting
5. External review

2.1. Use of Proceeds

An amount equivalent to the proceeds of the Green Bond issuance will be exclusively used to finance or refinance, in whole or in part, investments in “Eligible Projects” and “Eligible R&D Projects” as defined below:

Category 1: Energy Efficiency

Eligible Projects will cover expenditures aiming to improve the energy efficiency of LG Display's corporate and manufacturing facilities or supply chain, including but not limited to:

- (i) heating, ventilation, and air conditioning system upgrades
- (ii) high-performing lighting systems
- (iii) installation of energy monitors systems and appliances.

Category 2: Sustainable water & wastewater management

² GBP 2018: <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

Eligible Projects will cover expenditures aiming to reduce water consumption, improve water reuse rate, and/or to minimize discharge of water pollutants in each business site throughout the entire production process.

Category 3: Pollution prevention & control

Eligible Projects will cover investments aiming to minimize waste materials, maximize recycling throughout LG Display’s production process, and/or reduce air pollutants emissions.

Category 4: Eco-efficient and/or circular economy adapted products

Eligible R&D Projects will cover R&D expenditures related to the development and production of environmentally sustainable products aiming to align with the SGS Eco-Product Certification (see Appendix 1 for more details on the certification). In line with the four environmental criteria assessed under the SGS Eco-Product Certification, Eligible R&D Projects will be those that target one or more of the following objectives:

- (i) Improve resource efficiency: resource saving, recycled material use and durability
- (ii) Manage, reduce or restrict the use of Hazardous substances³
- (iii) Improve Energy savings: energy consumption and energy efficiency
- (iv) Improve recycling efficiency: WEEE⁴ and design for easy disassembly

In order to ensure that investments are deployed towards the most recent and impactful projects and technologies, “Eligible Projects” and “Eligible R&D Projects” shall be projects with disbursements not older than calendar year 2016 (for existing projects) or with future disbursements.

By contributing to the development of Eco-friendly Products through sustainable and resilient production technologies and processes, LG Display’s Green Bond will support achieving the following United Nations Sustainable Development Goal contributing in particular to the specific targets mentioned below:

SDG	Target
	<p>6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.</p> <p>6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity.</p>
	<p>9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>

³ In accordance with international regulations: RoHS (Restriction of Hazardous Substances) and REACH

⁴ Waste Electrical and Electronic Equipment recycling



12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

2.2. Process for project evaluation and selection

In 2013, LG Display established a CSR Committee that directly reports to the CEO to promote sustainable practices. Chaired by the Head of the Group Management Support, it promotes systematic sustainability management.. The committee consists of 7 sub-committees including Fair Practice, Shared Growth, Ethical Management, Labor Human Rights, Safety & Health, Environmental Management, and CSR, and establishes sustainability strategy and directions while monitoring progress and issues.

The CSR Committee will act as the reference committee for LG Display's Green Bond, ensuring the respect of the Green Bond Framework and overseeing the entire issuance process. Along with selecting and maintaining the pool of "Eligible Projects" and "Eligible R&D Projects" in accordance with the Use of Proceeds section, the CSR Committee will supervise the management of proceeds, reporting and monitoring of indicators, ensuring availability and quality of data.

The CSR Committee will also be responsible for managing any future updates to the Green Bond Framework, including any expansion of the use of proceeds requirements. Any changes to the Green Bond Framework will be published on LG Display's website.

Process to Mitigate Environmental Risks

The evaluation and selection process of the "Eligible Projects" and "Eligible R&D Projects" rely on LG Display's strong processes to identify and mitigate environmental risks. In that regards, the Company obtained environmental and energy management system certifications (e.g. ISO14001, ISO50001) at its domestic and overseas business sites and carry out consistent environmental management activities in accordance with its environmental strategy.

2.3. Management of proceeds

In accordance with the evaluation and selection process presented above, an amount equivalent to the Green Bond proceeds will be allocated to Eligible Projects and Eligible R&D Projects and managed by LG Display's Finance & Risk Management Department in consultation with the CSR Committee.

LG Display commits on a best effort basis to reach full allocation within one year of the Green Bond issuance.

The Company will monitor and track the net proceeds through its internal accounting system. Pending the full allocation, unallocated proceeds may temporarily be invested in accordance with LG Display's investment guidelines in cash, deposits and money market instruments.

During the life of the issued Green Bond, if the designated Projects or R&D Projects are sold or cease to fulfil the Eligibility Criteria, the proceeds will be re-allocated to replacement Projects or R&D Projects that comply with the Eligibility Criteria, as soon as reasonably practicable.

2.4. Reporting

LG Display intends to produce annually and at least until the full allocation of the Green Bonds, an allocation and impact reporting as per below:

Allocation reporting

1. List of Eligible Projects and Eligible R&D Projects refinanced or financed
2. Amount allocated to Eligible Projects and Eligible R&D Projects
3. Unallocated proceeds at the reporting end-period (if any)

Impact reporting

LG Display commits on a best effort basis to report on relevant impact metrics, which may include:

Eligible Categories	Impact Metrics
1. Energy Efficiency	<ul style="list-style-type: none"> • Energy savings • Estimated annual CO₂ emissions reduced/avoided (in tons of CO₂ equivalent)
2. Sustainable water & wastewater management	<ul style="list-style-type: none"> • Water reuse rate • Volume of water reused (in tons) • Estimated annual avoided emissions of water pollutants
3. Pollution prevention & control	<ul style="list-style-type: none"> • Recycling Rate • Volume of waste recycled (in tons), of which volume of Hazardous waste • Estimated annual avoided emissions of air pollutants (NO_x, SO_x, Dust)
4. Eco-efficient and/or circular economy adapted products	<ul style="list-style-type: none"> • Details of eligible R&D projects will be disclosed, including, where possible and taking into consideration

	intellectual property protection measures and know-how aspects, the target environmental benefit targeted with the selected R&D expenditures.
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The allocation and impact reporting will be integrated within LG Display’s Sustainability Report and will be made available via LG Display’s website:

[<http://www.lgdisplay.com/eng/sustainability/report>]

2.5. External review

Second-Party Opinion

KPMG was appointed as an independent third party to provide assurance on LG Display Green Bond Framework and its alignment with the ICMA Green Bond Principles. The Opinion from KPMG (“Second Party Opinion”) will be made available on LG Display’s website:

[<http://www.lgdisplay.com/eng/sustainability/report>]

APPENDIX 1: SGS ECO LABEL CERTIFICATION METHODOLOGY⁵



SGS Eco Label Certification

Evaluation element

1. Reducing Hazardous Substance
2. Efficiency of Resource
3. Recycling, etc.

SGS Eco-Product Certification is a voluntary environmental certification and labelling program which has been developed to contribute to a reduction in the environmental impact associated with electrical and electronic product lifecycle.

SGS Eco-Product Certification considers four environmental criteria throughout product life cycle (i.e. from extraction of resources and manufacturing to use and disposal relating to relevant cross-media environmental indicators):

- ✓ Resources: resource saving, recycled material use and durability
- ✓ Hazardous substances: RoHS and REACH
- ✓ Energy saving: energy consumption and energy efficiency
- ✓ Recycling: WEEE and design for easy disassembly

⁵ <https://www.sgs.com/en/consumer-goods-retail/product-certification-marks/sgs-eco-product-certification-mark>