

# FUTURING SMART ENERGY





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## Report Overview

LS ELECTRIC has been communicating with its stakeholders by publishing sustainability reports each year since 2015. This Report, our seventh such report, serves to provide a balanced and transparent presentation of our economic, environmental and social activities – their progress and achievements in the year of 2020. We at LS ELECTRIC will pursue sustainable growth and development while reaching ever closer to stakeholders.

## Reporting Period

This Report spans the period between January 1, 2020 and December 31, 2020, and this extends to the first quarter of 2021 for some performance. As to quantitative data, the reporting period covers the recent three years to support yearly trend analyses.

## Reporting Scope

This Report illustrates the key data identified through the materiality analysis process. While this Report primarily focuses on our domestic worksites, it also includes overseas worksites on a selective basis when deemed necessary.

## Reporting Standards

This Report was prepared in accordance with the GRI (Global Reporting Initiative) standards: Core option, and the UN SDGs (Sustainable Development Goals).

## Assurance

To establish the objectivity and credibility of the report content, this Report was assured by the Korea Management Registrar as a third-party independent assurance provider.

## Contact Information

This Report is freely accessible on our corporate website (www.ls-electric.com). For inquiries or feedback on this Report, please contact us through the following:

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# 2020 Highlights



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## FEBRUARY



### Named a 'Top 100 Global Innovator' for the 9th Year Running

LS ELECTRIC was proudly recognized as a Top 100 Global Innovator by Clarivate Analytics, a world-renowned academic data service provider, for nine consecutive years. The Top 100 report, published annually since 2012, ranks leading businesses that discover new ideas and translate them into products in the global market based on their patent applications and invention activities and names top innovators accordingly.



### Honored with 2 iF Design Awards

LS ELECTRIC was honored at the iF Design Award 2020 of Germany, one of the world's three most prestigious design awards, for two consecutive years. The award-winning products are the next-generation power solution Susol Smart MCCB and the key automation product iXP2, the Company's leading power and automation solutions. This achievement enabled LS ELECTRIC to make it into the Global Top 25 as an industrial equipment maker, gaining recognition for its design competitiveness.

## MARCH



### Changed the Company Name to LS ELECTRIC

As a pioneer of the nation's industrial power and automation sector, the Company changed its name to LS ELECTRIC. This new name represents the shift of the Company's focus from devices into solution platforms through the convergence of manufacturing and information and communications technology, the Industry 4.0 solution business and smart transmission/distribution technology to move beyond Korea and emerge as a global market leader.

## JUNE



### Expanded Business Presence in the Chinese ESS Market

LS ELECTRIC signed a contract with the Chinese leading PCS company KLNE to acquire 19% equity of KLNE Changzhou, its PCS\* manufacturing subsidiary. This move is part of the comprehensive business partnership forged last year with the battery maker NARADA to advance into the Chinese ESS market, and the Company plans to fully launch the PCS business in China.

\*PCS: Power Conditioning System

## JULY



### Constructed Korea's Largest 94MW PV Power Plant in Youngam

LS ELECTRIC successfully completed the project to build the nation's largest 94MW photovoltaic power generation plant, and is now accelerating its endeavors to tap into the smart energy market that is expected to experience explosive growth globally. This project, valued at KRW 184.8 billion in contract amount, is the single largest PV project ever undertaken by LS ELECTRIC in Korea and abroad.

## SEPTEMBER



### Won the Eastern Line Signal System Project in Thailand

LS ELECTRIC was selected as the contractor to undertake the 667 million baht (KRW 25 billion) Eastern Line signal system project awarded by the State Railway of Thailand in conjunction with ITD, a company that ranked first in the country's railway construction sector. As a consortium partner along with ITD, the Company will be responsible for designing, manufacturing and installing the railway signal system, which amounts to nearly KRW 13 billion of the total project expenditures. This railway infrastructure project aims to completely replace the old signal system with a new one for 14 stations along the 169km section of the Eastern Line to promote regional development and expand its freight and passenger capacity.

## SEPTEMBER



### Successfully Commissioned the MMC\* and the STATCOM\*

LS ELECTRIC installed the third-generation FACTS (Flexible AC Transmission Systems) of the MMC and the STATCOM at the Godeok Substation in Pyeongtaek, Korea. This will surely contribute to the stable power supply to Samsung Electronics' Pyeongtaek worksite, the world's largest semiconductor manufacturing location, as well as to Godeok New Town in Pyeongtaek. The STATCOM continuously adjusts the power losses which occur during transmission and distribution (reactive power) to keep voltage levels stable across the power system.

\*MMC: Modular Multilevel Converter \*STATCOM: Static Synchronous Compensator



### Developed BTS to Prevent ESS Fires from Ever Occurring

LS ELECTRIC has developed BTSs (Battery Temperature Sensors) by leveraging optical technology to measure the temperatures of ESSs in real time at the battery cell level and discontinue the operation of ESSs when they are overheated above the set threshold. To perform such measurements at the level of cells that compose modules, specially-designed optical fiber was inserted to avoid interference among electrical and electronic devices, and this allowed continuous temperature measurements at 30cm intervals to monitor overheated parts precisely and rapidly.

# Chairman's Message

**Distinguished Stakeholders,**

Let me extend my deepest gratitude for your unwavering interest in and support for LS ELECTRIC, and I wish all of you and your loved ones health and safety.

In 2020, our business performance did not meet the set expectations amid the global trade dispute, currency fluctuations and rising commodity prices along with the global economic slowdown that stemmed from the COVID-19 pandemic.

We did not allow such difficult challenges to slow us down, however, and declared our new vision 'DRIVE CHANGE FOR 2030' to turn the on-going crisis into an opportunity for our future growth. Under this vision, we will post significant growth each year by 2030 while evolving into a Global Company and a Digital Enterprise in its truest meaning with global operations and new digital business accounting for more than 70% and 50% of our business portfolio respectively.

To translate this vision into a reality, we will undertake the following three initiatives.

**Acceleration of Digital Transformation**

The imminent 4th Industrial Revolution will serve as a critical turning point for our economy to shift from the current prolonged low growth into accelerating growth. We firmly believe that Digital Transformation is the first and foremost momentum that will place us front and center in this economic acceleration. As such, we at LS ELECTRIC will harness information and communications technology and digital competency to build new business models and digitalize our fundamental corporate identity all the way from work processes and communication methods to organizational culture.

**Generation of Global Business Performance**

It is only essential that we generate performance from our global business to remain successful over the next decade. To this end, we will expand our overseas business infrastructure while consistently strengthening our internal/external capabilities. We will pursue business innovation to ensure that our global business model fully caters to local needs, and transition into a digital and online platform-based business model that transcends physical borders.

**Advancement of ESG Management**

We are taking the lead in creating a green energy ecosystem with our photovoltaics, ESS, and micro-grid businesses while developing high-efficiency power devices, g<sup>3</sup> Gas GIS, and other green products to preemptively respond to climate change. Furthermore, we eliminate risk factors to ensure the safety of our employees and continuously strive to disseminate a culture of health and safety at the worksite level in order to provide a globally-recognized green and injury-free workplace. In tandem with this, we will further build transparency into our governance to become a reliable, trustworthy partner for our stakeholders.

Dear Stakeholders,

Our journey over the years has been filled with a number of challenges and our tireless efforts to rise to such challenges to progress this far. Guided by our new vision 'DRIVE CHANGE FOR 2030', we are determined to pursue development and growth into the future. We look forward to your keen interest in and encouragement for our journey every step of the way.

Thank you.

Ja-Kyun Koo  
CEO & Chairman



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# About LS ELECTRIC

## LS ELECTRIC at a Glance

Under our new name 'LS ELECTRIC', we will take the initiative  
 in developing future energy technology, and will emerge as  
 a leader beyond Korea into the global market.

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## Company Profile

Spearheading the development of Korea's industrial power and automation solutions sector, LS ELECTRIC is now taking a leap forward as a company engaging in smart energy and other convergence-driven businesses amid the changing times of the 4th Industrial Revolution and the rapidly-shifting market landscape. In 2020, we announced our new corporate identity of LS ELECTRIC, and moved on to present our new vision 'DRIVE CHANGE FOR 2030' in 2021 to pursue fundamental transformation for the upcoming age of growth. At LS ELECTRIC, we ceaselessly commit ourselves to emerging as a global market leader on the strength of our top-notch quality and exceptional technology.

### Company Overview

<b>Name of Company</b>	LS ELECTRIC Co., Ltd.
<b>Date of Establishment</b>	July 24, 1974
<b>CEO</b>	Chairman Ja-Kyun Koo, President Yong-Sang Park, Vice President Ki-Won Nam
<b>Head Office</b>	LS Tower, 127, LS-ro, Dongan-gu, Anyang City, Gyeonggi Province, Korea
<b>Employees</b>	3,352 persons
<b>Credit Rating</b>	AA- in corporate bond, A1 in CP (Korea Investors Service)

### Summarized Financial Statements in 2020 (on a consolidated basis)

<b>Sales</b>	KRW 2,403 billion
<b>Operating Income</b>	KRW 134 billion
<b>Total Assets</b>	KRW 2,540 billion
<b>Total Liabilities</b>	KRW 1,127 billion
<b>Total Equity</b>	KRW 1,413 billion

### Corporate History

#### 1974-1995

##### Era of Beginning

Pioneering the power and automation industries

- Jul. 1974** | Established Lucky Packaging Co., Ltd.
- Mar. 1987** | Renamed Goldstar Industrial Systems Co., Ltd.
- Jul. 1994** | Held an initial public offering of Goldstar Industrial Systems Co., Ltd.
- Feb. 1995** | Renamed LG Industrial Systems Co., Ltd.
- Sep. 1995** | Merged with Goldstar Instrument & Electric Co., Ltd. and Goldstar Electric Machinery Co., Ltd.

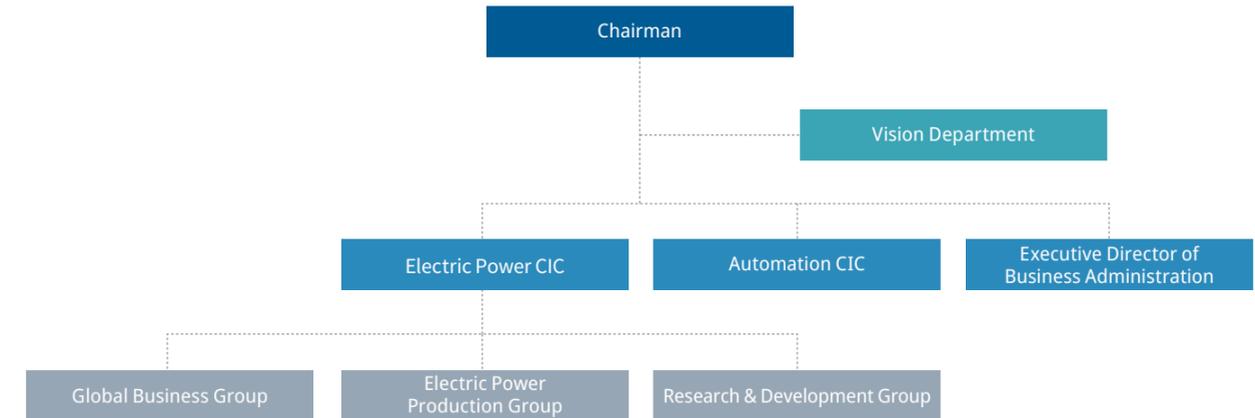
#### 1996-2007

##### Era of Challenge

Becoming the leader in the Korean power and automation sectors

- Apr. 1997** | Established a production subsidiary in Vietnam
- Apr. 1997** | Merged with LG Metal Co., Ltd
- Jun. 2000** | Completed a plant in Dalian, China
- Aug. 2000** | Power Testing & Technology Institute designated as a certified testing organization
- Dec. 2003** | Separated from LG Group
- Mar. 2005** | Renamed LSIS
- Sep. 2005** | Completed a plant to produce electric power & automation equipment in Wuxi, China
- Feb. 2007** | Established the sales subsidiary LSIS (ME) FZE in Dubai, UAE

### Organizational Chart



#### 2008-2014

##### Era of Growth and Innovation

Fully advancing into the global era

- Apr. 2008** | Relocated the Head Office to LS Tower in Anyang
- Oct. 2009** | Established a sales subsidiary in Europe
- Oct. 2009** | Incorporated LS Mecapion as a subsidiary
- Feb. 2010** | Established LS Sauter
- Apr. 2010** | Completed a plant in Busan
- Apr. 2010** | Spun off the Metal Processing Business Unit (current LS Metal)
- Oct. 2010** | Established Japan Sales Corporation
- Oct. 2011** | Completed a HVDC plant in Busan
- Nov. 2011** | Named one of the 500 Fastest Growing Companies by Fortune Korea
- May 2012** | Completed an EV relay plant in Cheongju
- Dec. 2012** | Established a sales subsidiary in the U.S.
- Nov. 2013** | Received the USD 500 Million Export Tower
- Nov. 2013** | Awarded at the 39th National Quality Management Competition
- May 2014** | Received the Gold Tower Order of Industrial Service Merit on Invention Day

#### 2015-2021

##### Era of Value Management

Opening up the future of smart energy

- Jan. 2015** | Declared the guiding principles of value management
- Mar. 2015** | Completed R&D Campus
- Mar. 2016** | R&D Campus achieved Korea's first BEMS certification
- Sep. 2016** | R&D Campus certified as the first in deploying ESS for emergency power supply
- Mar. 2017** | Listed on the Top 100 Companies based on patent applications made in Europe
- Jun. 2017** | Awarded as Korea's Best Enterprise for 10 consecutive years
- Sep. 2017** | Awarded the Industry, Trade and Energy Minister's Prize in Strategic Trade CP
- Nov. 2018** | Won the Grand Prize in the efficiency sector at the 'Power Demand Management Awards'
- Dec. 2018** | Won the Minister's Prize at the Korea Technology Awards
- Dec. 2018** | Acquired the ESS business of the US-based company Parker-Hannifin
- Jul. 2019** | Became Korea's first to achieve KSGA's PCS Certification Edition 3.0 for ESS applications
- Aug. 2019** | Completed the world's largest Self-Sufficient DC Energy Island in Seogeocho
- Dec. 2019** | Established a China holding company
- Mar. 2020** | Renamed LS ELECTRIC Co., Ltd.
- Mar. 2021** | Named one of the world's Top 100 Innovative Companies for 10 consecutive years
- Mar. 2021** | Acquired LS ITC and AC&T as subsidiary



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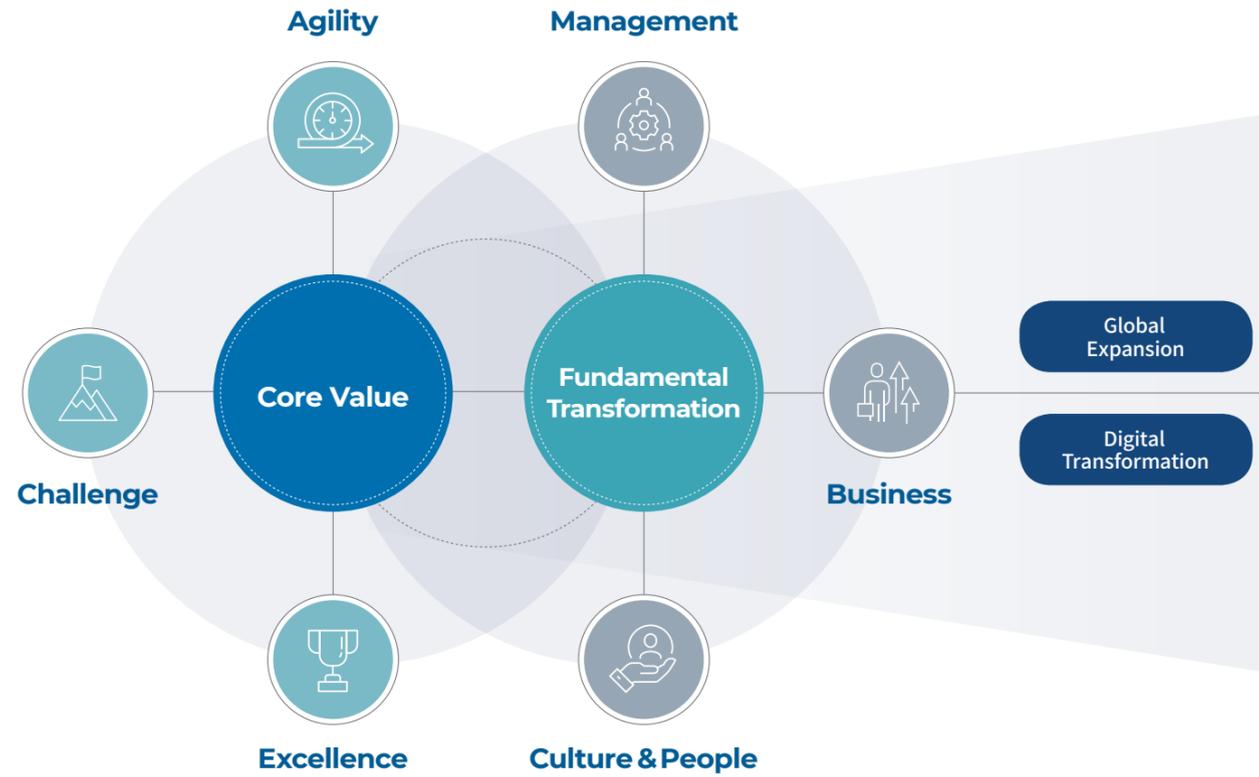
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# Evolution beyond Revolution

Moving beyond innovation towards evolution, LS ELECTRIC emerges as a global company pursuing accelerated growth. On the strength of smart energy solutions powered by digital transformation, we render our business operations even more efficient and innovative.



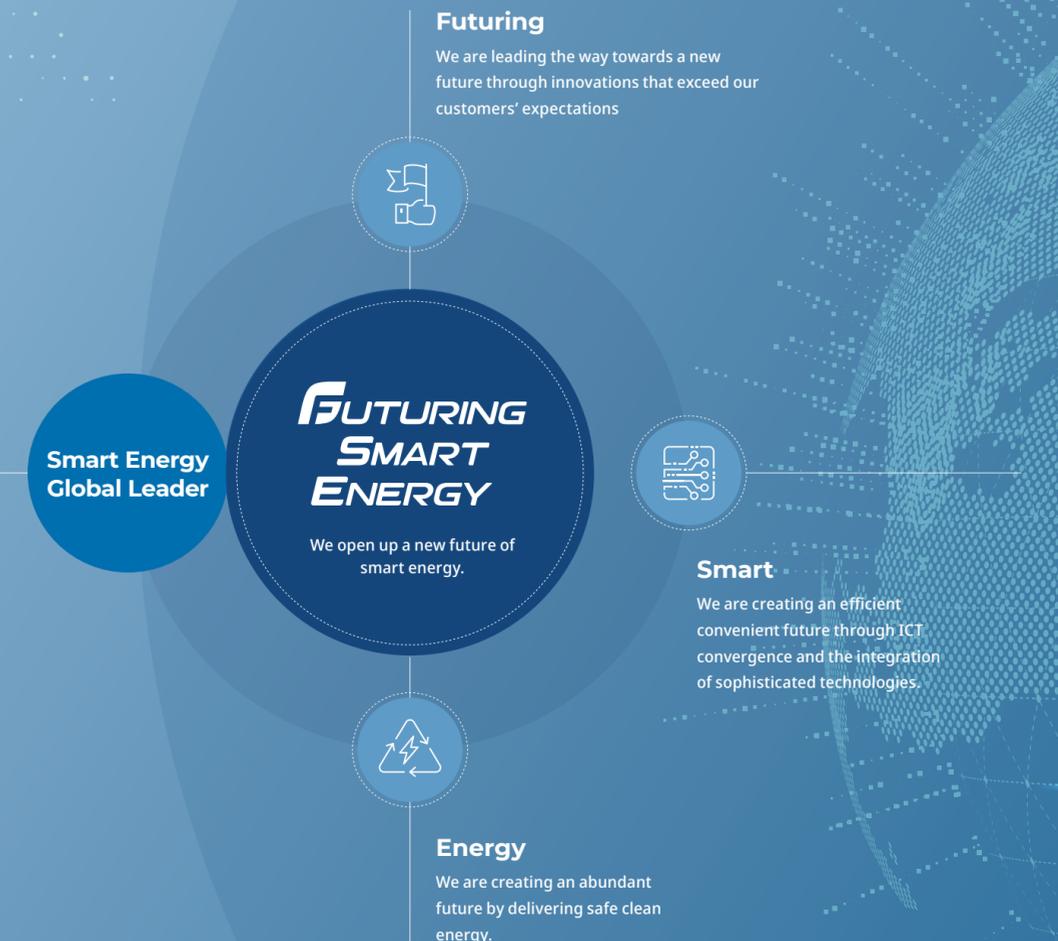
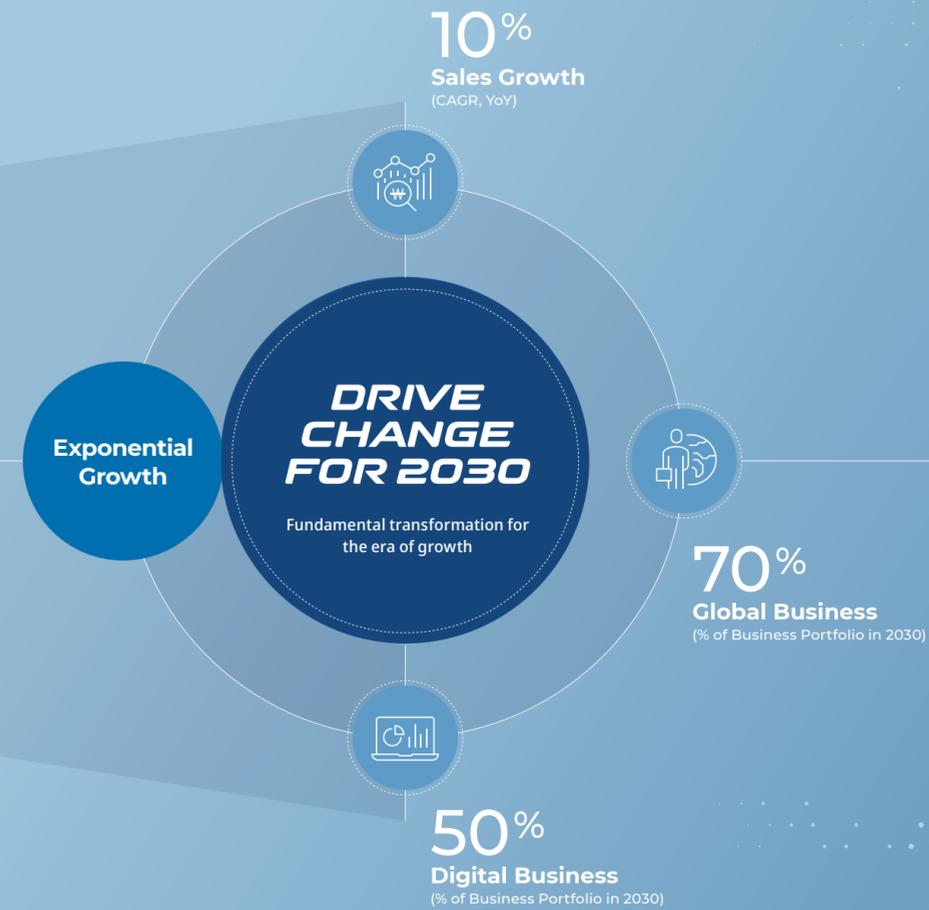
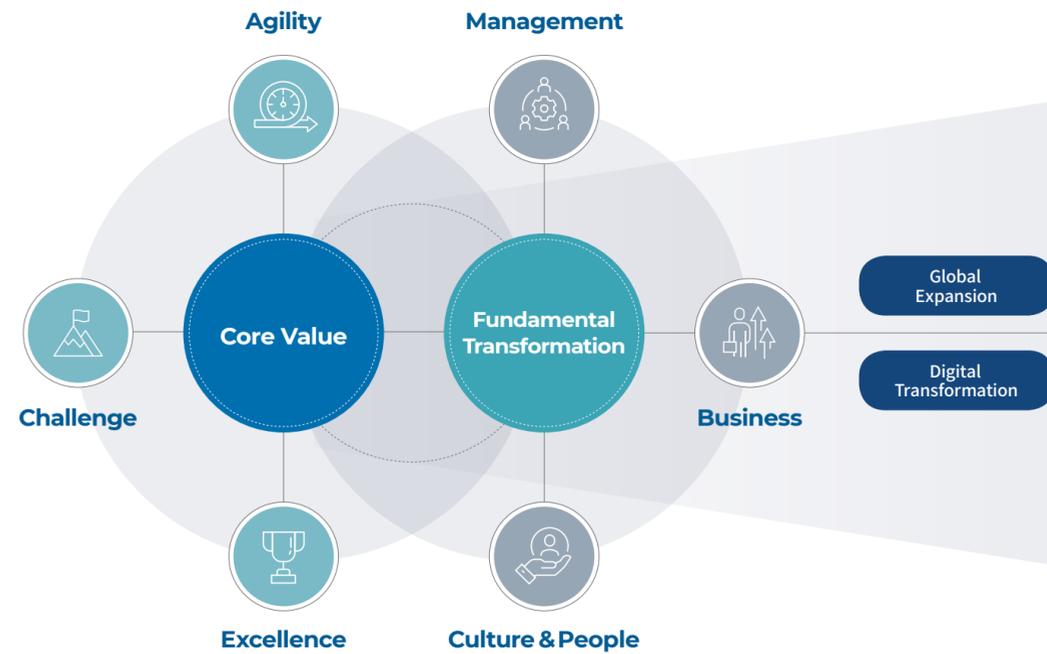
# SMART ENERGY GLOBAL LEADER

LS ELECTRIC embarks on a new journey to brighten up the whole world through smart energy.

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## Corporate Governance



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### Composition and Operation of the BOD

LS ELECTRIC's Board of Directors (BOD) consists of seven directors in total – three inside directors and four outside directors – in accordance with applicable laws and regulations and the Articles of Incorporation. Under the BOD are the three subcommittees of the Audit Committee, the Outside Director Nomination Committee and the Internal Transaction Committee.

#### Subcommittees of the BOD

**Audit Committee** | The Audit Committee is composed of four outside directors, and is responsible for supervising and assisting senior management in making informed decisions through checks and balances. The Committee reviews operating results and financial statements on a quarterly basis or more often, and is authorized to audit general accounting operations and the status of corporate assets when deemed necessary.

**Outside Director Nomination Committee** | The appointment of outside directors follows fair and transparent procedures through the Outside Director Nomination Committee. This Committee consists of two outside directors and one inside director.

**Internal Transaction Committee** | The Internal Transaction Committee aims to oversee related party transactions and improve the transparency of business operations through the establishment of a fair trade compliance system. The Committee consists of four outside directors.

#### BOD and Subcommittee Operations in 2020

Organization	No. of Meetings Convened	Attendance	No. of Decision Items	No. of Information Items
BOD	9	97%	25 items	17 items
Audit Committee	5	90%	4 items	20 items
Outside Director Nomination Committee	2	83%	2 items	-
Internal Transaction Committee	4	93%	6 items	-

**Total Remuneration of the BOD in 2020** (limit set at KRW 10 billion)



#### Composition of the BOD

As of Mar. 29, 2021

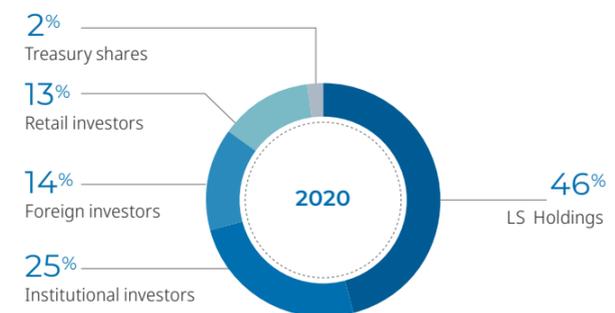
Director	Name	Position	Career	Date of Appointment
Inside directors (3 directors)	Ja-Kyun Koo	Chair of the BOD, Chairman & CEO	- (current) Chairman & CEO, LS ELECTRIC - (former) Professor at Graduate School of International and Public Affairs, Korea University	Mar. 24, 2020 (reappointed)
	Yong-Sang Park	President & CEO	- (current) COO, Electric Power CIC, LS ELECTRIC - (former) Executive Director of Business/DT, LS ELECTRIC	Mar. 24, 2020 (reappointed)
	Ki-Won Nam	Vice President & CEO	- (current) Executive Director of Business Administration, LS ELECTRIC - (former) Vice President & CEO, LS Metal	Mar. 29, 2021 (reappointed)
Outside directors (4 directors)	Seung-Il Moon	Outside director/member of the Audit Committee	- (current) Professor of electrical engineering, Seoul National University	Mar. 24, 2020 (reappointed)
	Won-Chang Lee	Outside director/member of the Audit Committee	- (former) Professor of accounting, Chungnam National University	Mar. 29, 2021 (reappointed)
	Jung-Kyu Oh	Outside director/member of the Audit Committee	- (former) 51st Second Vice Minister of Food, Agriculture, Forestry and Fisheries	Mar. 26, 2019 (newly appointed)
	Jong-Won Choi	Outside director/member of the Audit Committee	- (current) Professor at Graduate School of Public Administration, Seoul National University - (former) Outside director at SK Hynix	Mar. 24, 2020 (newly appointed)

### Shareholder/Investor Status

LS Holdings is our largest shareholder with 46% in ownership, and the second largest shareholder, the National Pension Service of Korea, owns approximately 13% of LS ELECTRIC as of December 31, 2020.

Shareholder	Relationship	Type of Share	No. of Shares	Ownership
LS Holdings	Largest shareholder	Common share	13,800,000	46%
Treasury shares	-	Common share	674,974	2%
Institutional investors	National Pension Service	5% or more ownership Common share	4,028,088	13%
	Others	- Common share	3,621,327	12%
Foreign investors	-	Common share	4,087,071	14%
Retail investors	-	Common share	3,788,540	13%
<b>Total</b>		<b>Common share</b>	<b>30,000,000</b>	<b>100%</b>

#### Share Ownership (as of Dec. 31, 2020)



#### Communication with Shareholders and Investors

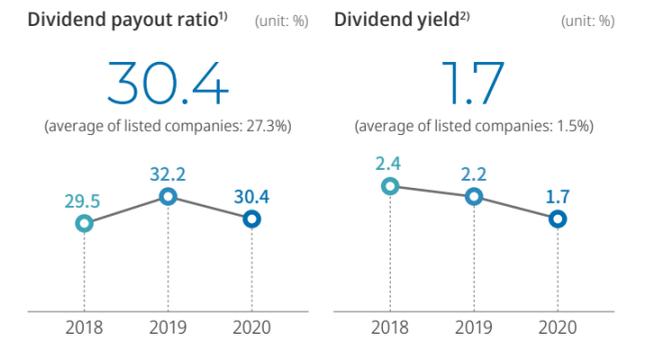
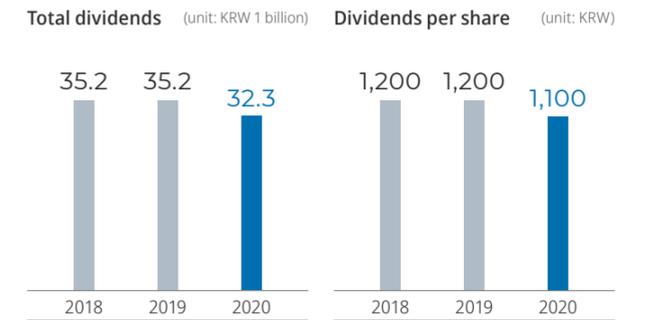
We regularly host quarterly earnings release meetings. We also communicate with investors through conference calls to improve our corporate value.

Category	Note
Feb.	Earnings release NDR* for Q4 2019 Feb. 3-5 (organized by Daishin Securities)
May	Earnings release NDR for Q1 2020 Apr. 29, May 6-7 (organized by NH Investment & Securities)
Aug.	Earnings release NDR for Q2 2020 Aug. 3-4 (organized by Kiwoom)
Nov.	Earnings release NDR for Q3 2020 Nov. 2-3 (organized by Hanwha Investment & Securities)

\*NDR : Non-Deal Roadshow

### Shareholder Return (Dividends)

We pay above-the-market-average dividends to our shareholders and investors.



Note 1) Dividend payout ratio: Total Dividend/net income (on a non-consolidated basis)  
Note 2) Dividend yield: Dividends per share/year-end closing price (please refer to data from the Korea Exchange)

#### ESG Assessments by Korea Corporate Governance Service

We were rated overall A in the ESG assessments performed by the Korea Corporate Governance Service in 2020 in recognition of our outstanding sustainability management system. We vow to maintain our exceptional ESG ratings through continued interest and commitment in the years ahead.





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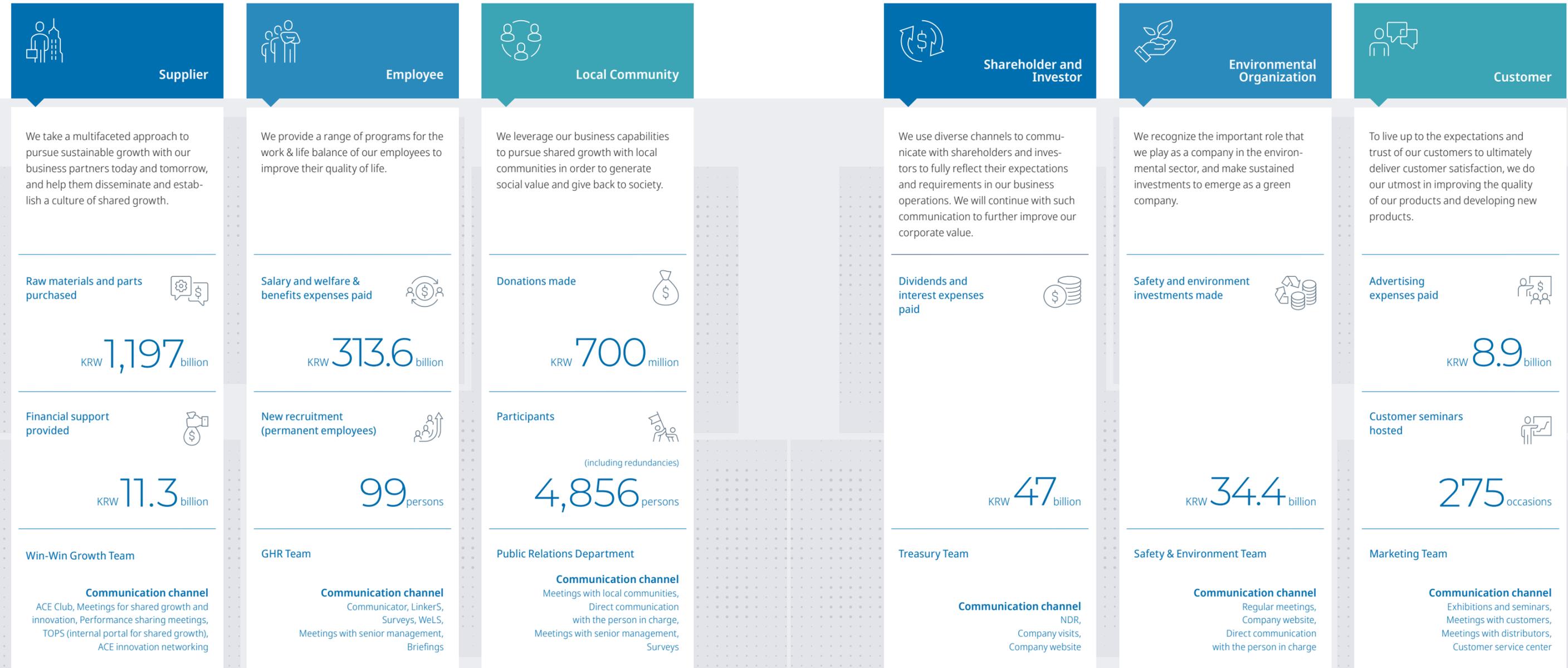
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## Stakeholder Value Chain Map

### Creating Value with Stakeholders

LS ELECTRIC creates value with stakeholders throughout its entire business operations and shares such values with them. We will join hands with our stakeholders to generate and share even greater value in the upcoming years.



# Global Business

LS ELECTRIC set a mid/long-term vision for respective overseas markets to broaden its global business presence. Not only do we pursue the evolution of existing businesses but also we identify new business opportunities and strengthen the basis of business operations in order to take a tailor-made approach to each of our local markets.



**1 Europe**  
Accelerating growth mainly in the renewable energy market

**2 Middle East & Southwest Asia**  
Strengthening direct sales through localization

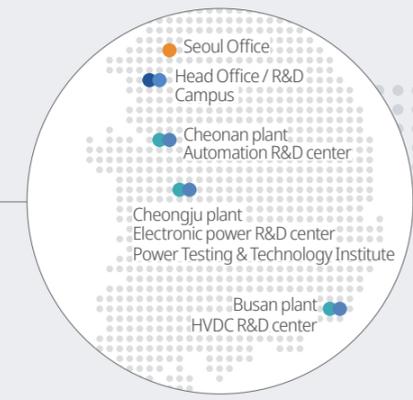
**3 China**  
Reinforcing business capabilities in power equipment and system business

**4 Southeast Asia**  
Focusing on the sales of strategic products and project identification

**5 North America**  
Delivering global products and solutions and tapping into the Central and Latin American markets

As of Mar. 31, 2021

<b>Domestic Subsidiary</b>	<b>LS Metal</b> Manufacturing copper tubes and STS pipes Yongsan-gu, Seoul, Korea	<b>LS Mecapion</b> Manufacturing industrial electronic equipment Dalseo-gu, Daegu, Korea	<b>LS -Sauter</b> Selling BAS/IBS, and GBS systems Anyang, Gyeonggi Province, Korea	<b>LS ITC</b> Providing total IT services Yongsan-gu, Seoul, Korea	<b>AC&amp;T system</b> Manufacturing industrial communication equipment Anyang, Gyeonggi Province, Korea
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● <b>Head office</b>	Anyang
● <b>Seoul office</b>	Yongsan
● <b>Domestic worksite</b>	Cheongju, Cheonan, and Busan
● <b>Domestic R&amp;D center</b>	R&D Campus (Anyang), Electronic power R&D center (Cheongju), Power Testing & Technology Institute (Cheongju), Automation R&D center (Cheonan), and HVDC R&D center (Busan)
● <b>Overseas holding company</b>	Shanghai (China)
● <b>Overseas production subsidiary</b>	Wuxi (China), Dalian (China), Hanoi (Vietnam), and Charlotte (US)
● <b>Overseas sales subsidiary</b>	Amsterdam (Netherlands), Dubai (UAE), Tokyo (Japan), Chicago (US), Istanbul (Turkey)
● <b>Overseas branch</b>	Shanghai (China), Beijing (China), Guangzhou (China), Qingdao (China), Chengdu (China), Shenyang (China), Tokyo (Japan), Ho Chi Minh (Vietnam), Moscow (Russia), Jakarta (Indonesia), Bangkok (Thailand), Irvine (US), Singapore (Singapore), Bengaluru (India), and Verona (Italy)
● <b>Overseas R&amp;D center</b>	Wuxi (China)



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# Business Overview

## Power Solutions Business

LS ELECTRIC delivers total solutions that ensure safety and efficiency throughout the entire process from power generation to final consumption. Our flagship products are categorized into 'transformers' and 'circuit breakers': transformers change voltages to desired levels, and circuit breakers provide opening and closing of the current carrying contacts to isolate and protect an electrical circuit from the damage caused in the event of overloads or short circuits. Recent additions to our power solutions portfolio include the High Voltage Direct Current (HVDC) system designed to minimize energy losses while maximizing efficiency in electricity transmission, the Energy Storage System (ESS), the Energy Management System (EMS), and the Power Conversion System (PCS) for ESS applications.

## 2020 Performance of Power Solutions Business

(on a non-consolidated basis)

Sales

KRW **1,565** billion



Ratio of overseas sales

**24%**



Ratio of the total business

**84%**



Plans for 2020

- Generate synergy through collaboration with automation business
- Diversify the business portfolio by tapping into new markets
- Diversify the available market in alignment with global business

Performance in 2020

- Expanded direct advancement into the renewable /application markets
- Explored ways to tap into new markets
- Broadened local coverage by establishing a subsidiary in Turkey

Plans for 2021

- Diversify new businesses and elaborate on business execution
- Expand the distribution coverage to facilitate equipment distribution business
- Strengthen efforts to win large-scale projects through scalable EPC

## Smart Energy

LS ELECTRIC conducts fuel cell, photovoltaic power generation and Energy Storage System (ESS) businesses on the strength of its power electronics and system design technology, and delivers total solutions spanning from business development to equipment supply and EPC. Our smart energy business is driven by optimal operation and management through the leveraging of big data.

### 01. High Voltage Direct Current (HVDC)

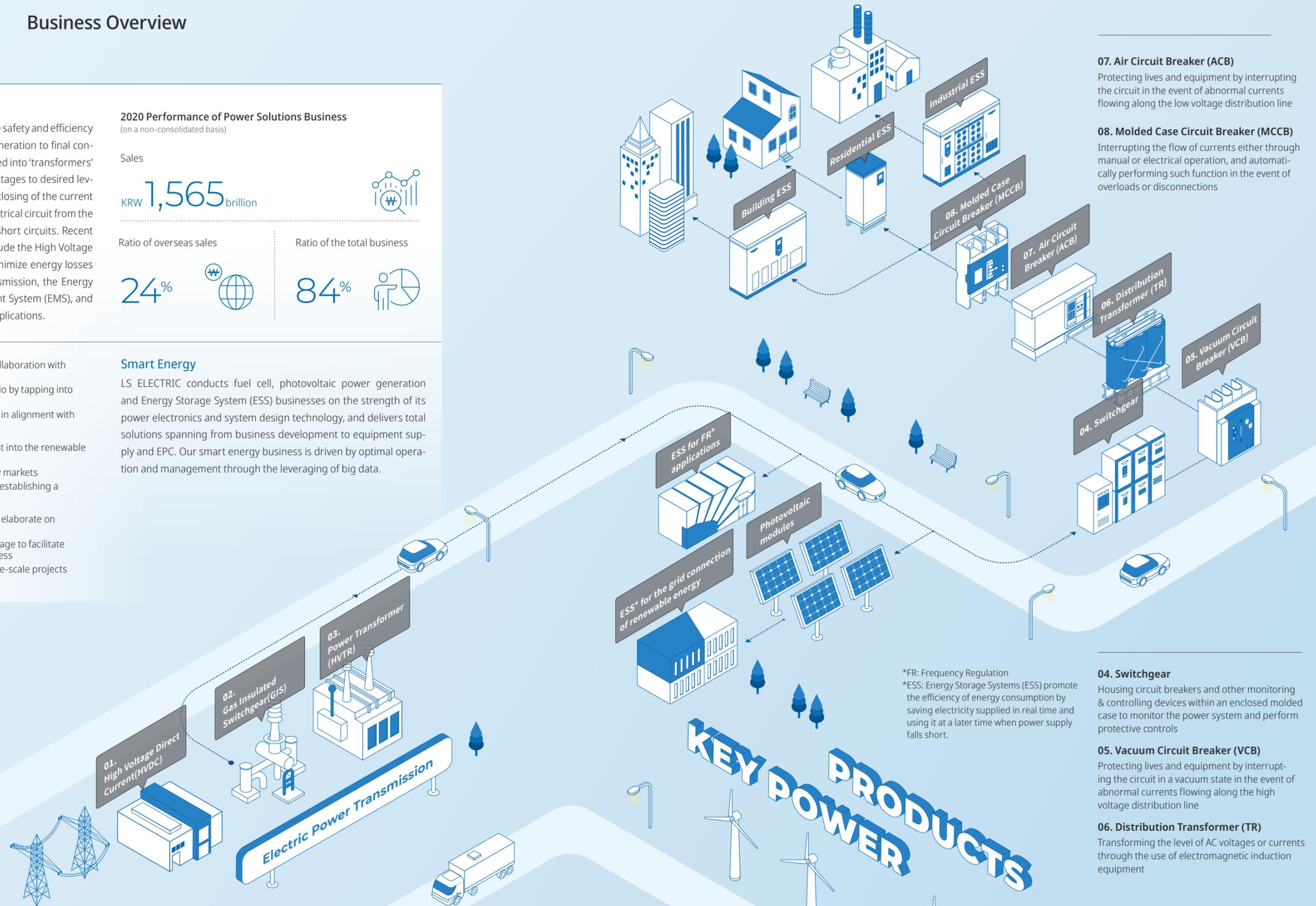
Converting alternating current (AC) to direct current (DC) for transmission

### 02. Gas Insulated Switchgear (GIS)

Protecting power plants and substations from power line overloads, earthing or short circuits

### 03. Power Transformer (HVTR)

Providing stable voltage/current transformation either through a step up or step down in voltage



\*FR: Frequency Regulation

\*ESS: Energy Storage Systems (ESS) promote the efficiency of energy consumption by saving electricity supplied in real time and using it at a later time when power supply falls short.

### 04. Switchgear

Housing circuit breakers and other monitoring & controlling devices within an enclosed molded case to monitor the power system and perform protective controls

### 05. Vacuum Circuit Breaker (VCB)

Protecting lives and equipment by interrupting the circuit in a vacuum state in the event of abnormal currents flowing along the high voltage distribution line

### 06. Distribution Transformer (TR)

Transforming the level of AC voltages or currents through the use of electromagnetic induction equipment

### 07. Air Circuit Breaker (ACB)

Protecting lives and equipment by interrupting the circuit in the event of abnormal currents flowing along the low voltage distribution line

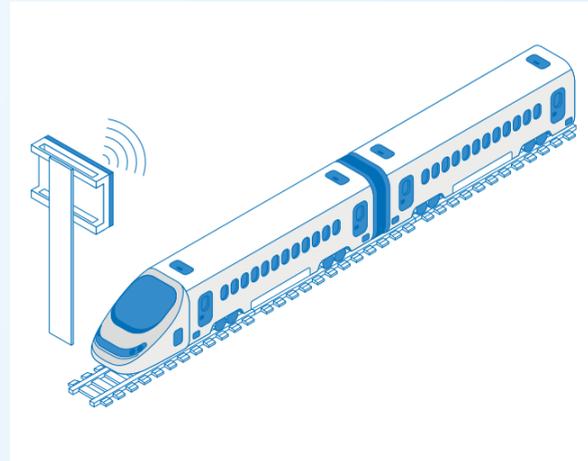
### 08. Molded Case Circuit Breaker (MCCB)

Interrupting the flow of currents either through manual or electrical operation, and automatically performing such function in the event of overloads or disconnections

## Business Overview

### Railway Infrastructure

LS ELECTRIC offers total solutions for the manufacturing, installation, commissioning and operation & maintenance of the cutting edge control equipment required for the safe operation and increased efficiency of trains. As a railway system leader with the most extensive experience in undertaking domestic projects, we are recognized for our technological prowess in the global market.



### Power Supply System

Our power supply system provides electricity to trains, stations and other relevant railway facilities, and ensures the stable operation of the entire railway equipment while protecting the safety of trains against any accidents that may occur.

### Signaling System

Our signaling system deploys all-encompassing train control (signaling and communication) systems and engineering technology to handle train intervals and routes as well as their operational security and informatization equipment through the use of varying signaling and communication equipment that caters to distinctive railway characteristics.

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### Automation Business

LS ELECTRIC provides a wide array of automation solutions that enable the efficient operation of the industrial environment, from single unit machines to process controls. Our flagship products include PLC for effective equipment control, AC Drive for motor speed regulation, Servo for precision equipment control, and HMI for real-time equipment monitoring. We also engage in smart factory solution business to leverage plant automation solutions in order to identify IT solutions that meet customer needs and develop them in platform format to support efficient business operations.

Plans for 2020

- Expand entry into strategic domestic markets
- Broaden global partnerships
- Focus R&D resources on localization projects

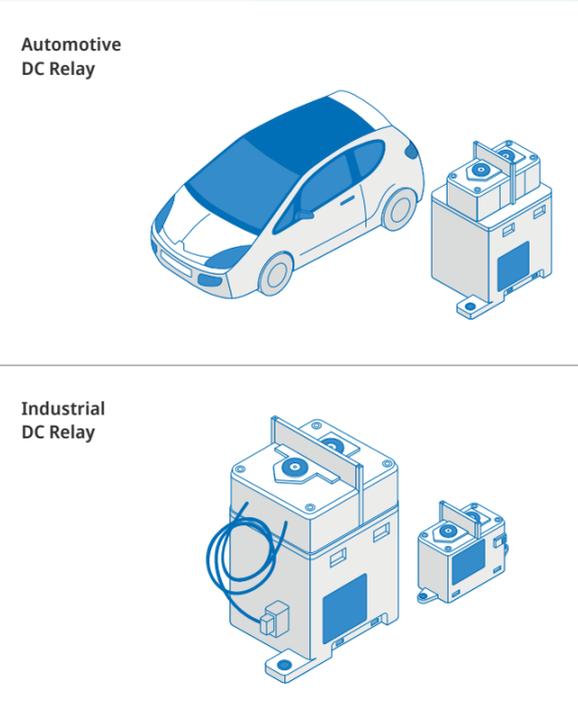
Performance in 2020

- Generated outcomes in identifying major customers and projects in strategic domestic markets
- Secured large customer accounts in North America
- Swiftly responded to application solution needs in the strategic market

Plans for 2021

- Strengthen direct sales in respective domestic industries
- Expand the business domain (through strategic M&As)
- Launch new digital business

#### 2020 Performance of Automation Business (on a non-consolidated basis)



### DC Relay

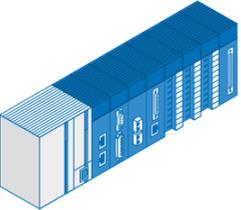
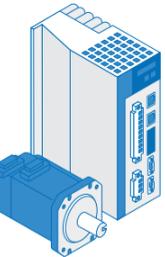
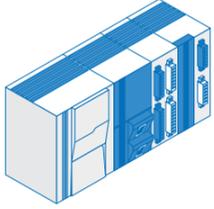
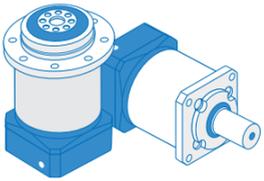
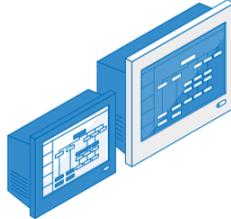
The rapid growth of the electric vehicle and eco-friendly vehicle segments is fueling the continued market growth of DC relays that serve to ensure the stable supply and interruption of automotive power. LS ELECTRIC's DC relays are renowned for their exceptional electrical durability, compactness and low-noise performance.

#### Automotive DC Relay

Automotive DC relays are installed between the automotive battery and the load to ensure the stable supply and interruption of power.

#### Industrial DC Relay

High voltage relays are normally used for renewable energy and transportation systems, and serve to supply and interrupt power for batteries and DC loads.

 <p><b>AC Drive (Inverter)</b> Converting the frequency of electricity from commercial supply sources to control the speed or torque (rotational force) of a motor, reducing energy consumption in so doing</p>	 <p><b>PLC</b> Serving as a universal controller to operate machinery according to the programmed orders and conditions to meet varying process automation purposes</p>	 <p><b>Servo</b> Delivering high-precision motor operation according to feedback from upper-level devices on the specific position and speed</p>
 <p><b>Motion</b> Providing precision position control over equipment as the system desires</p>	 <p><b>Decelerator</b> Transmitting the reduced velocity and increased torque as a result of load through connection to the motor shaft to deliver strong torque and efficiency performance for a variety of industrial applications</p>	 <p><b>HMI</b> Allowing users to perform real-time touch-screen-based monitoring on the operational status of manufacturing equipment on the shop floor and to control and take immediate action when deemed necessary</p>

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## Green/Smart Energy



### Renewable Energy

Unlike other energy sources, renewable energy poses a low risk of 'running out' and its demand is increasing as a means to protect the environment through GHG emissions reduction and promote energy conservation. As Korea's leading company recognized for its extensive technology portfolio spanning from generation to transmission and distribution, LS ELECTRIC delivers one-stop services and end-to-end solutions in the renewable energy sector on the strength of its top-notch technology from consulting and design all the way to installation and after-sales services.



### Microgrid

A microgrid represents a new power system that serves a small geographic area that autonomously generates, stores and supplies energy with a focus on decentralized electricity sources that are independent of the conventional power grid system. LS ELECTRIC successfully created a self-sufficient DC (Direct Current) energy island to ensure stable energy supply and improve energy self-sufficiency by establishing a low voltage direct current power distribution network in remote island regions suffering the lack of proper power infrastructure. On the DC energy island, power sources and renewable energy are directly connected with the DC power distribution network, and the high-quality direct current power generated as such is directly supplied to DC customers to reduce losses in power conversion while improving energy efficiency.



### FEMS

The FEMS (Factory Energy Management System) is an integrated energy management system that aligns the MES (Manufacturing Execution System) with the EMS (Energy Management System) capable of performing energy-related monitoring, data compilation and analysis, and optimal control with an aim to improve energy efficiency across manufacturing, process control, equipment management and other operations at the worksite (plant). LS ELECTRIC's FEMS harnesses latest digital transformation technologies including but not limited to smart devices, AI, big data, and cloud on the basis of the digital power system platform Grid-Sol CARE to provide solutions that improve the reliability of equipment and the efficiency of equipment management and energy use through strengthened connections among all power equipment and the rigorous analysis of collected information.

### Green Products

To take the lead in creating a green energy ecosystem, LS ELECTRIC is developing and producing vegetable oil-based transformers, eco-friendly gas insulated switchgear (GIS), and other green products. Our eco-friendly transformer uses highly bio-degradable vegetable oils as the insulation medium to prevent environmental pollution in the event of oil leaks and to reduce the risk of fires and explosions based on the high flash and ignition points of such oils. Our eco-friendly 170kV50kA GIS was developed for the first time in the world to help mitigate GHG emissions in the ultra-high-pressure GIS segment.



Eco-friendly vegetable oil-based transformer

Eco-friendly GIS

## Business Overview

### Smart Factory

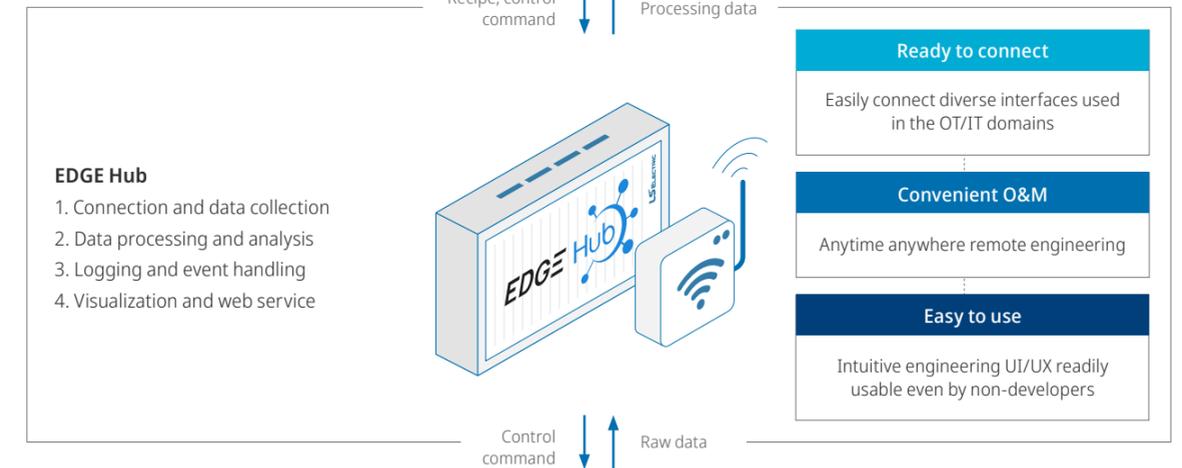
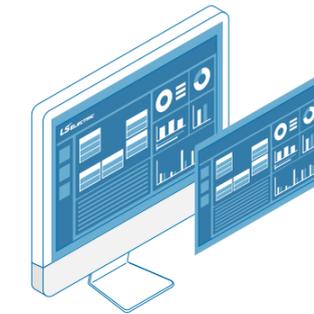
To assist customers in building a smart factory that enables autonomous manufacturing through the monitoring, analysis, optimization and prediction of all 4M1E\* data present in the industrial environment, LS ELECTRIC provides life cycle management services spanning consulting, system deployment, and operation & maintenance across the entire areas from operations technology to information technology.

\* 4M1E (Man, Machine, Material, Method, Energy)



Data management solution capable of processing and analyzing a wide spectrum of data in the operations technology area and providing data services to systems in the information technology area

**Application**  
(MES, Database, Cloud...)



**Devices installed in the field**



The 'Edge-to-Cloud' smart factory solution is made available by combining LS ELECTRIC's EdgeHub solution and SK telecom's Grandview Service. This solution supports customers with manufacturing, quality, cost, on-time delivery and predictive equipment maintenance.

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# Core Issues

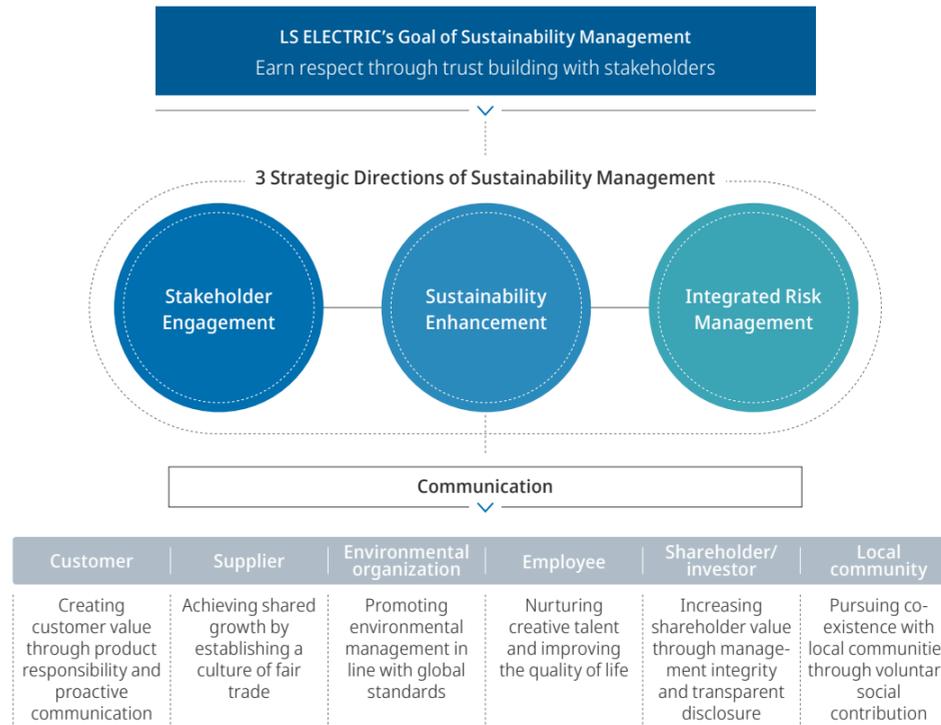
The goal of sustainability management at LS ELECTRIC is to earn respect through trust building with stakeholders. To attain this goal, we will create a sound corporate culture while proactively reaching out to and earn trust from stakeholders in order to pursue shared growth and generate even greater value.

- 30 — Integrated Sustainability Management
- 32 — Materiality Analysis
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## Integrated Sustainability Management

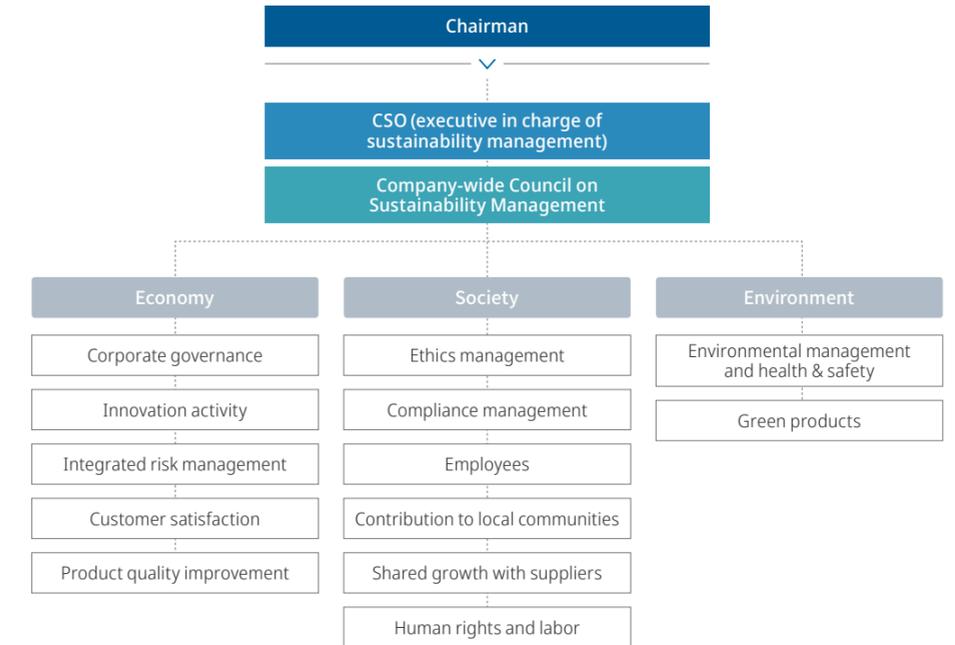
### Sustainability Management Framework



### Sustainability Management Roadmap

	Building a wider consensus on sustainability management	Strengthening the execution of sustainability management	Disseminating sustainability management across global operations
Integrated sustainability management	<ul style="list-style-type: none"> <li>Provide in-house training on sustainability management</li> <li>Operate the Council on Sustainability Management</li> </ul>	<ul style="list-style-type: none"> <li>Assess the performance of sustainability management</li> <li>Strengthen function-specific implementation strategies</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the sustainability management infrastructure at overseas worksites</li> <li>Expand global initiative activities</li> </ul>
Stakeholder engagement	<ul style="list-style-type: none"> <li>Define responsible/relevant departments and their roles &amp; responsibilities (R&amp;R) by stakeholder group</li> </ul>	<ul style="list-style-type: none"> <li>Develop a process to reflect stakeholder feedback into business operation</li> </ul>	<ul style="list-style-type: none"> <li>Broaden the scope of stakeholders at the global level and strengthen department-specific R&amp;R</li> </ul>
Sustainability enhancement	<ul style="list-style-type: none"> <li>Strengthen the disclosure of environmental data</li> </ul>	<ul style="list-style-type: none"> <li>Systemize environmental monitoring along the value chain</li> </ul>	<ul style="list-style-type: none"> <li>Reinforce green marketing at the global level</li> </ul>
Integrated risk management	<ul style="list-style-type: none"> <li>Reinforce the integrated risk operation system</li> </ul>	<ul style="list-style-type: none"> <li>Establish a monitoring process to prevent major risks</li> </ul>	<ul style="list-style-type: none"> <li>Develop a risk assessment and management system at overseas worksites</li> </ul>

### Sustainability Management Implementation System and Council



### Our Response to the UN SDGs

LS ELECTRIC aligns its strategies and activities with the UN Sustainable Development Goals (UN SDGs) that consist of 17 goals and 169 targets to contribute to the successful attainment of these goals.



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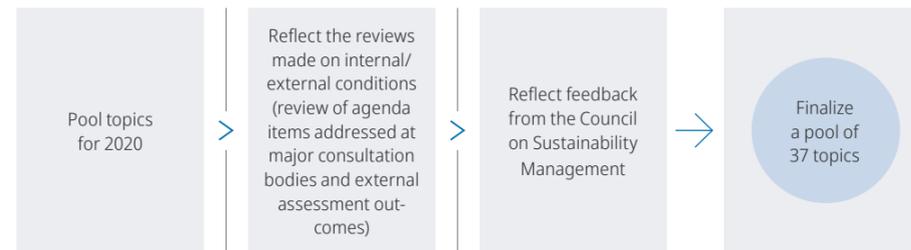
## Materiality Analysis

### Materiality Analysis

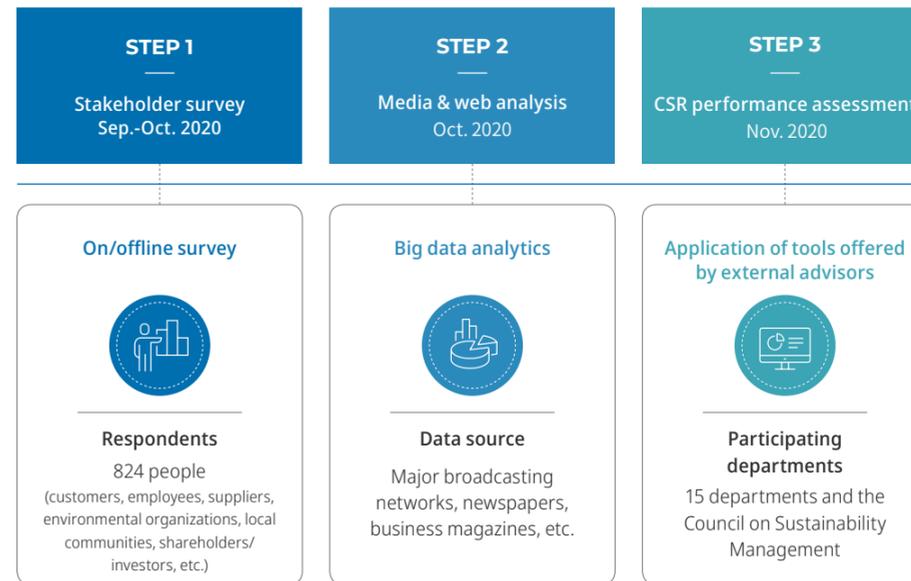
#### Overview

LS ELECTRIC identified 37 key topics by reflecting the reviews made on internal/external conditions and feedback from the Council on Sustainability Management, and narrowed them down to material topics for reporting based on their impact on its business and stakeholder concern. A total of 18 material topics were identified by 1) creating a pool of key topics, 2) prioritizing key topics and 3) finalizing material topics.

#### Creation of a Pool of Topics

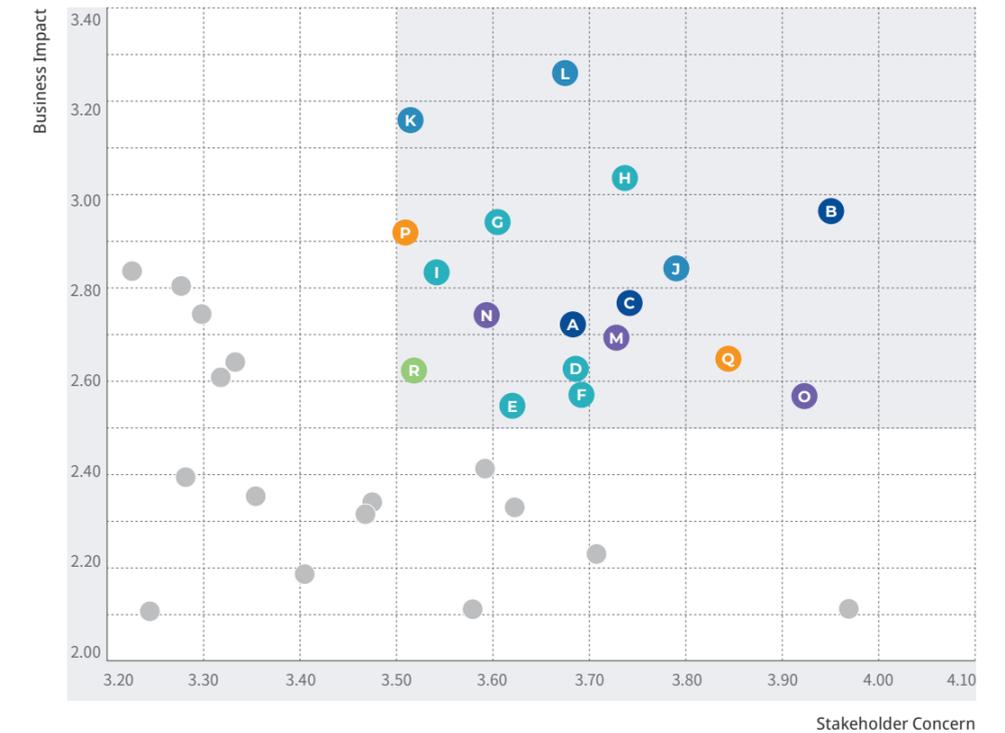


#### Materiality Analysis to Select Material Topics



### Identification of Material Topics

The materiality analysis matrix was created based on business impact and stakeholder concern. For details on material topics and our solutions to them, please refer to the pages indicated in the table below.



Category	Material Topic	Page	Category	Material Topic	Page
Ethics management	A Ethics management	36	Environment and Safety	J Workplace health and safety	54
	B Compliance management	39		K Energy conservation and climate change	57
	C Integrated risk management	40		L Workplace safety management	60
Customer satisfaction	D Quality competitiveness	44	Shared growth	M Culture of fair trade	64
	E Product reliability system	45		N Conflict mineral management	68
	F Technological competitiveness	45		O Culture of shared growth	69
	G Intellectual property management	46	Employee	P Talent management	73
H Eco-friendly products and services	48	Q Respect for human rights and labor-management relations		75	
Local community	I Customer communication	50	R Employee volunteering	80	



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Core Issue



# Ethics Management

LS ELECTRIC pursues integrity and transparency in business conduct to fulfill its role and responsibility towards customers, suppliers, shareholders and society at large. We build a sound corporate culture and rigorously practice compliance management and its relevant principles across our entire business operations.



**Whistleblowing reports submitted**

11 reports



**Employees who completed ethics management training**

2,044 persons



**KEY PERFORMANCE & TARGETS**



- Strengthen ethics management training (cyber training and case study training)
- Introduce cleanbots to provide Q&A support to solve ethical dilemmas



- Provided cyber ethics management training to all employees
- Expanded job level-based training on ethics management (new team leaders, expatriates, and new recruits)



- Continue to operate job level-based ethics management training
- Introduce chatbots to help employees answer questions on ethics management and improve their access



**[Goal 16]**  
 Build effective and transparent institutions at all levels for sustainable development

**16.6**  
 Develop effective, accountable and transparent institutions at all levels

**16.b**  
 Promote and enforce non-discriminatory laws and policies for sustainable development

**COMMITMENT**

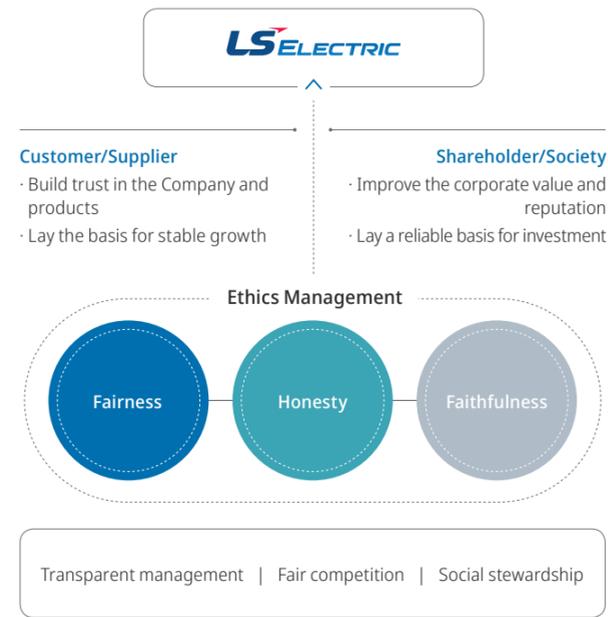
**Kyung-Yun Kim** | Leader of Business Audit Team

LS ELECTRIC is ceaselessly committed to become a company trusted by customers, suppliers, shareholders and society for its honest and reliable business conduct by practicing LSpartnership, LS Group's management philosophy, and upholding its core values of 'integrity' and 'mutual respect'. We have stipulated an operational system and the Code of Ethics to establish and disseminate a culture of ethics management, and continuously engaged in diverse practice programs, including training and publicity campaigns for employees as well as supplier surveys. We also operate a regular whistleblowing system to doubly ensure that we eliminate any and all non-compliance with ethics management.

# Ethics Management

## Goal of Ethics Management

The goal of LS ELECTRIC's ethics management is to conduct business in a transparent manner based on fairness, honesty and faithfulness and to constantly evolve into a top-tier company that fulfills its responsibility to customers, suppliers, shareholders, and society at large.



## Code of Ethics and Conduct

The Code of Ethics and Conduct has been stipulated and is operated to provide all employees with standards to follow in taking proper actions and making value judgements.

Code of Ethics	Description
<b>Chapter 1. Responsibilities and obligations to customers</b>	Sincerity in information provision   customer service   protection of customers' interests
<b>Chapter 2. Fair competition</b>	Fair competition   respect for applicable laws and regulations and commercial practices
<b>Chapter 3. Fair trade</b>	Fairness in selecting suppliers   fairness in trade and evaluation   maintenance of transparent trade order   support for suppliers
<b>Chapter 4. Basic ethics for employees</b>	Maintenance of employee's dignity   honesty and fairness in reporting   protection of corporate assets   avoidance of conflict of interest with the Company   anti-sexual harassment at workplace
<b>Chapter 5. Responsibilities to employees</b>	Talent development   fair treatment   health and safety   respect for individual opinions
<b>Chapter 6. Responsibilities to the nation and society</b>	Reasonable business conduct   protection of shareholder rights and interests   contribution to national and social development   environmental protection

## Operational System of Ethics Management

The Ethics Committee serves as the highest decision-making body in practicing the Code of Ethics, and the Ethics Committee Secretariat is up and running for day-to-day operation of ethics management.



## Operational Institution and System

### Whistleblowing System

A wide range of communication channels – phone, e-mail, post among others – and the cyber reporting center are up and running to receive and handle reports submitted by suppliers, employees and customers for any disadvantage they have come to suffer. In so doing, we are fully committed to eliminating any corruptive or unfair business practices and non-compliance with ethics management on the part of our employees. As for simple quality claims or service/product inquiries, they are referred to our customer service center instead of these whistleblowing channels.

(unit: No. of cases)

Type of Report	2018	2019	2020
Unfair trade	2	9	5
Corruptive behaviors	3	-	1
Unjustified business practices	-	3	-
Claims	2	6	-
Others	6	4	5
<b>Total</b>	<b>13</b>	<b>22</b>	<b>11</b>

### Whistleblower Protection Policy

LS ELECTRIC does not disclose any explicit or indicative information on the identity of whistleblowers or reports they submit without their prior consent. If our non-compliance with such whistleblower protection results in any disadvantage on the part of whistleblowers, we take responsibility for their restoration or take equivalent measures.

-  Whistleblowers and their reports strictly remain confidential, and the whistleblowing system is operated in a highly secure manner.
-  If a whistleblower reports corruptive practices involving himself /herself, this is taken into consideration in the reasonable resolution of the concerned case.
-  Information on whistleblowers and stakeholders is kept strictly confidential, and fair investigations are conducted on their reports to ensure the reasonable resolution of the concerned case.
-  If whistleblowers suffer any disadvantage due to their reports or personal information made public, we ensure their restoration or take equivalent remedial measures.

### Whistleblower Reward System

To eradicate any unethical practices of our employees and stakeholders and create a sound corporate culture, we have operated a whistleblower reward system since 2019.

### Self-Reporting System

To promote the voluntary elimination of any unethical practices that may occur among LS ELECTRIC employees or in relation to stakeholders (customers, suppliers, shareholders, etc.) and to establish a sound organizational culture, we operate the self-reporting system to regularly report on the acceptance of bribes or entertainment according to the predefined reporting form.

### Procedures to Respond to Non-compliance with Ethics Management

In accordance with the Code of Ethics and Conduct, strict disciplinary measures are taken against those who are in violation of these ethical standards.

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## Ethics Management

### Activities to Strengthen Employees' Execution

#### Ethics Management Pledge

All employees of LS ELECTRIC and its suppliers sign the ethics management pledge every two years to raise their awareness on the execution of ethics management and establish transparent work processes.

#### Ethics Management Survey on Employees

Ethics management surveys are performed every two years to measure employees' satisfaction with ethics management (ethics management index) and to monitor their compliance with the Code of Ethics and Conduct. This allows us to identify change in our ethics management performance and to gather employee suggestions and reflect them in ethics management.

#### Ethics Management Training

Ethics management training for employees is provided at the LS Group-wide level. Ethics management publicity materials are uploaded on our intranet, and company-wide cyber training is conducted under the supervision of the GHR Team. In 2020, 2,044 employees completed such training.

### Strengthening Partnership with Suppliers and Distributors

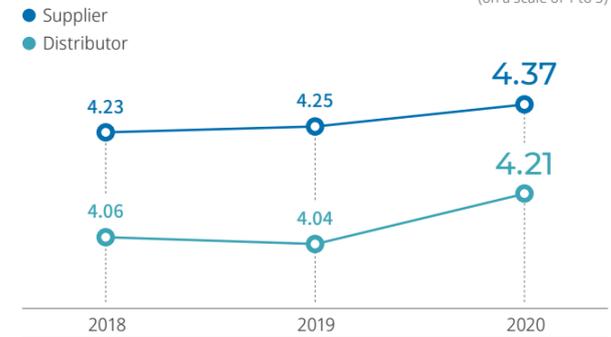
#### Sending Suppliers and Distributors Official Letters Calling for Their Cooperation

Prior to national holidays, we send our suppliers and distributors official letters calling for their cooperation to prohibit the practice of offering and receiving bribes, gifts or entertainment in doing business with LS ELECTRIC employees, encouraging them to join hands in practicing ethics management.

#### Ethics Management Survey on Suppliers and Distributors

Ethics management surveys are conducted each year to assess supplier/distributor satisfaction with LS ELECTRIC's ethics management and to monitor their compliance with the Code of Ethics and Conduct. This serves to identify any change in our ethics management performance and to collect suggestions and reflect them in ethics management. The overall survey score for 2020 showed year-on-year improvements, with 4.37 points among suppliers and 4.21 points among distributors (on a scale of 1 to 5).

Supplier/Distributor Satisfaction with Ethics Management (on a scale of 1 to 5)



#### Ethics Management Training for Suppliers

Performance-sharing meetings and lectures by external experts are hosted to spread a culture of ethics management and to disseminate and build consensus on LSpartnership, LS Group's management philosophy.

## Compliance Management

Since the introduction of the compliance officer system in 2012, LS ELECTRIC has hosted the compliance management proclamation ceremony in 2014, adopted the Compliance Program (CP), and conducted self-directed reviews to assist all employees in their compliance activities. Under the leadership of the head of Legal Affairs Group serving as the compliance officer, we categorize legal risks, perform self-initiated reviews, and offer compliance training to advance compliance management.

### Compliance Training and the Compliance Officer System

Our compliance officer operates under the direct leadership of the Board of Directors (BOD) in accordance with Korea's Commercial Act (Article 542-13). In 2012, our BOD appointed the head of Legal Affairs Group as the compliance officer (reappointed for every three years upon his/her termination of office), and the compliance officer organization is created under the Legal Affairs Group to report compliance activities to the BOD each year.

Major compliance activities include: (1) categorization of legal risks that may occur in business conduct, (2) development of a checklist to prevent and manage legal risks, (3) support for working-level staff in conducting self-reviews through the use of the checklist, and (4) compliance training and sharing of regulatory amendments for strengthened compliance management.

#### Fair Trade Compliance

In 2021, the BOD appointed the head of Legal Affairs Group as the fair trade compliance officer, and our fair trade compliance manual was revised in reflection of amendments made on the Fair Trade Act.

#### Self-directed Compliance Review

LS ELECTRIC's compliance officer organization classifies legal risks related to business operations while developing and providing a checklist to be used for self-directed management and review in day-to-day business routines.

The compliance officer and the fair trade compliance officer assist working-level employees in using the checklist to perform regular, self-directed compliance reviews each year while monitoring the outcomes of such reviews to engage in additional regulatory compliance reviews when deemed necessary.

### Strengthening Compliance Management

The compliance officer and the fair trade compliance officer are tasked with providing employees with annual theme-specific compliance training and sharing major domestic/overseas (draft) laws and regulations newly enacted or amended as well as governmental policies among relevant departments.

In 2020, compliance training and compliance reviews were conducted on 30 occasions, and regulatory amendments and other relevant information were shared internally on 13 occasions along with the distribution of training materials as a way to strengthen compliance management on multiple fronts.

Activity	Description
Operation of the compliance officer system	Categorize legal risks, update the checklist, conduct self-reviews (annual), and review regulatory compliance (year-round)
Fair trade compliance	Appoint the head of Legal Affairs Group as the fair trade compliance officer and amend the compliance manual
Compliance training	Review the status of contract signing, offer training on renewable energy EPC and O&M contracts, major international contracts, and the Fair Trade Act and the Subcontract Act, and conduct on-site checks on PV projects/power supply construction projects
Sharing of regulatory amendments	Share information on 3 major data laws, enforcement regulations of the Labor Standards Act, the National Contract Law, amendments to the Occupational Health and Safety Act and their details, and rulings made by the Supreme Court in relation to labor relations

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# Ethics Management

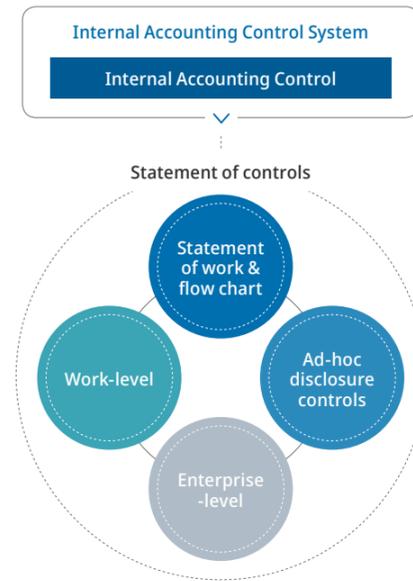
## Integrated Risk Management

### Internal Accounting Control

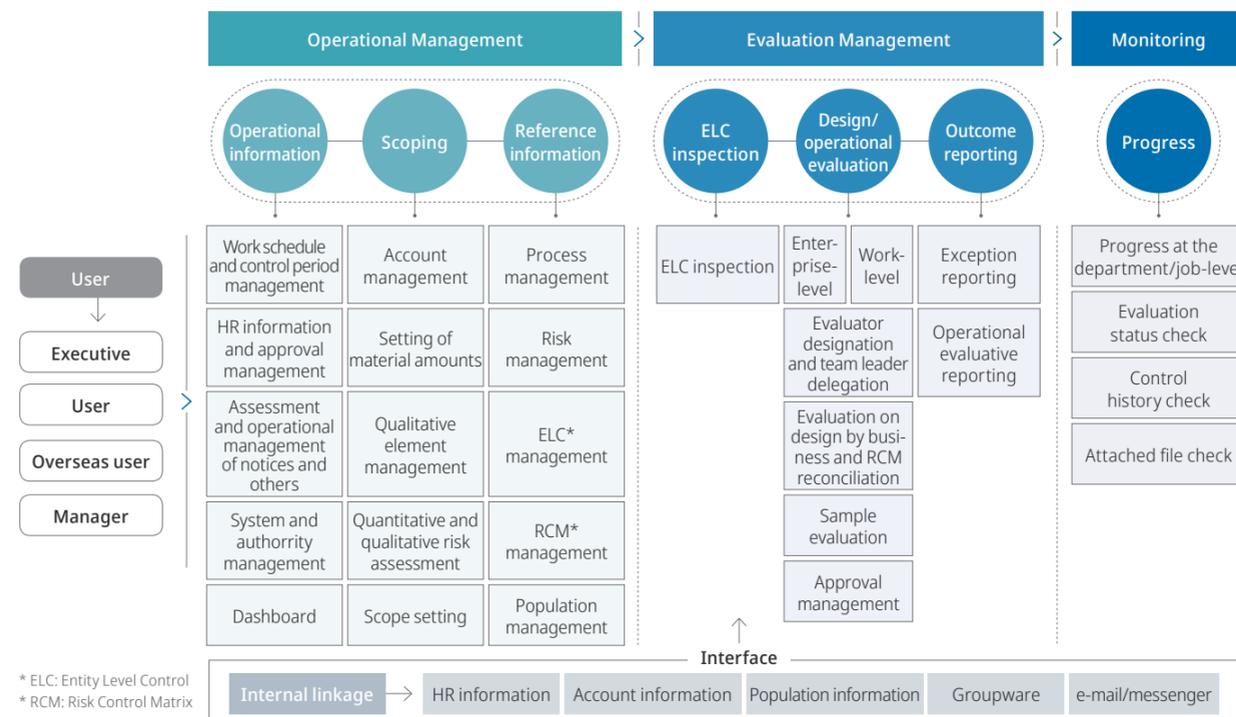
In line with the revision of the Act on External Audit on Stock Companies on November 1, 2018, all control items of our internal accounting control system underwent complete readjustment. In addition, systemic assessment and certification procedures were established to respond to the audits performed under this system while our internal accounting control system was optimized and fully restructured to improve our risk management performance at the global level.

### Internal Accounting Control Operation

To prepare and disclose trustworthy financial statements, LS ELECTRIC ensures that its internal accounting control system is effectively designed and operated in order to prevent and identify any errors or fraudulent practices that may cause distortions on such statements. Our CEO reports on the operational status of the internal accounting control system to the general shareholder meeting, the Board of Directors and the Audit Committee, and the Audit Committee reports assessment outcomes of the system's operational status to the BOD.



### LS ELECTRIC's Internal Accounting Control System



\* ELC: Entity Level Control  
\* RCM: Risk Control Matrix

## Risk Management Process

A precautionary management approach is taken in reviewing our entire work processes to identify potential risks. Once recognized, such risks are constantly reviewed and improvement measures are taken through robust follow-up management.



## Preemptive Risk Identification

Our company-wide risks are categorized into emergency response, proactive risk control, and work process internalization by type of management. A preemptive approach was adopted in 2016 to identify and manage risks even before they occur, and this applied first to key risks to establish an agile risk response system.

Type of Management		
<b>Emergency response</b>	<b>Proactive risk control</b>	<b>Work process internalization</b>
Respond and recover in an organized manner in accordance with the pre-defined action plans in the event of an emergency, and conduct mock drills	Precheck to prevent risks (checklist)	Identify improvement tasks based on risks and manage risks accordingly with a focus on working-level work process internalization
Preemptive Identification		
<b>Checklist management</b>	<b>Work process internalization</b>	
Prepare a risk checklist and perform reviews by the responsible department on issues that require prechecks	Reflect company-wide/operational level assessments in internal accounting control	

## Type of Risk Management

LS ELECTRIC defines risks as below across 104 different items in total under the category-division-section classification system. This system forms the basis to review type-specific risk management performance and conduct assessments by working-level and responsible departments in order to identify material risks and select 26 key management items.

### Company-wide Risk Pool

Category	External Environment Risk	Strategic Risk	Financial Risk	Compliance Risk	Operational Risk
Division	<ul style="list-style-type: none"> <li>Economy</li> <li>Country/Politics/Society environment</li> <li>Market</li> <li>Natural/man-made disaster</li> </ul>	<ul style="list-style-type: none"> <li>Business plan</li> <li>Growth</li> <li>PR/communication</li> </ul>	<ul style="list-style-type: none"> <li>Market</li> <li>Capital balance</li> <li>Asset impairment</li> <li>Financial settlement</li> </ul>	<ul style="list-style-type: none"> <li>Contract/litigation/trade</li> <li>Law/regulation</li> <li>Ethics/misconduct</li> </ul>	<ul style="list-style-type: none"> <li>Projects</li> <li>Support process</li> <li>Key process</li> </ul>
Section	<ul style="list-style-type: none"> <li>Economic condition</li> <li>Country</li> <li>Politics</li> <li>Competitor</li> <li>Customer/Account</li> <li>Purchase/Supplier</li> <li>External stakeholder</li> <li>Natural disaster</li> </ul>	<ul style="list-style-type: none"> <li>Business plan</li> <li>M&amp;A</li> <li>Business portfolio</li> <li>Social contribution</li> <li>New business development and investment</li> <li>Brand/Reputation</li> <li>PR/Communication</li> <li>IR</li> </ul>	<ul style="list-style-type: none"> <li>Credit rating</li> <li>Commodity price</li> <li>F/X</li> <li>Liquidity</li> <li>Trade receivables</li> <li>Intangible asset</li> <li>Tangible asset</li> <li>Inventory asset</li> <li>Investment asset</li> <li>Asset impairment</li> <li>Tax</li> <li>Accounting fraud</li> </ul>	<ul style="list-style-type: none"> <li>Contract</li> <li>Fair trade (anti-trust)</li> <li>HR/labor</li> <li>IP/privacy protection</li> <li>Overseas/trade</li> <li>Corruption</li> <li>Ethics/compliance</li> <li>Other laws &amp; regulations</li> </ul>	<ul style="list-style-type: none"> <li>Project cost</li> <li>Purchase/procurement</li> <li>Design/manufacturing</li> <li>Bidding/contract-winning</li> <li>Project management</li> <li>IT</li> <li>Corporation management</li> <li>HR</li> <li>Environment/safety</li> <li>R&amp;D</li> <li>Purchase/procurement</li> <li>Logistics</li> <li>Production/quality</li> <li>Sales/marketing</li> </ul>
<b>No. of Risk Items</b>	<b>13</b>	<b>16</b>	<b>22</b>	<b>19</b>	<b>34</b>



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**Customer Satisfaction**

LS ELECTRIC is committed to ensure that customers buy the Company's products with confidence. As part of our endeavors to improve product quality and reliability, a development process based on the reliability management system is up and running, and an R&D productivity enhancement system has been established to maximize R&D business performance and efficiency.



R&D expenses

KRW **137** billion

IPR (intellectual property rights) registrations and applications

**8,327** cases

Customer seminars hosted

**275** occasions



**[Goal 7, 11]**  
 Ensure access to reliable and sustainable energy for all

**7.2**  
 Increase substantially the share of renewable energy in the global energy mix

**11.3**  
 Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management

**KEY PERFORMANCE & TARGETS**



- Strengthen service solution capabilities based on Digital Transformation
- Develop target products to increase sales in overseas markets
- Develop devices and systems to respond to renewable energy and DC power distribution



- Developed low/high Voltage smart switchgear solutions
- Developed target products in China, the Americas, Vietnam and other overseas markets
- Established a LVDC line-up to respond to renewable energy and DC distribution



- Develop solutions to facilitate the digital business
- Develop products to increase global sales
- Develop products to lead the green and future growth markets

**COMMITMENT**

**Hogan Kim** | Leader of Marketing Department, Global Business Group

LS ELECTRIC, in response to the transition into the digitally-based Industrial Revolution, announced its new vision "DRIVE CHANGE FOR 2030" with a strong commitment to transforming into a global company and a digital enterprise that leads accelerated growth. To realize this vision, we are expanding the development of products that help strengthen our competitiveness in new markets and overseas businesses. Advancing our digital transformation-driven service solutions and reinforcing our business competitiveness across local markets, we will deliver the value desired by local customers across the globe.

## Customer Satisfaction

### Goal of Customer Satisfaction Management

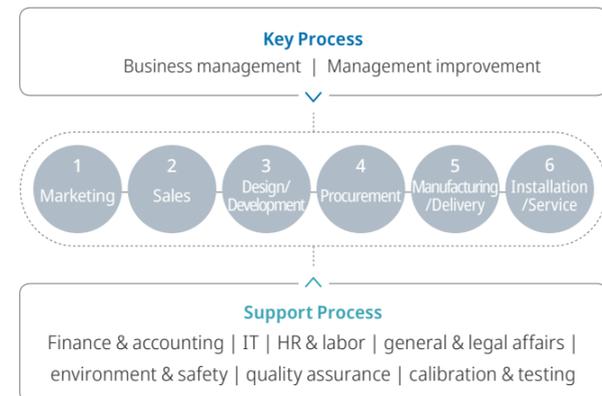
We have set our quality mission of becoming a ‘Great Company Prospering for 100 Years with Quality That Creates Customer Satisfaction’, and we build trust and provide information to enable customers to choose our products and services with confidence through continuous quality improvement and innovation.



### Quality Management System

LS ELECTRIC’s quality management system reflects the requirements of ISO9001, ISO14001, IATF16949, and ISO45001, as well as regulatory/customer/market needs and necessary process improvements identified in the course of business conduct. We ensure that this system is implemented across our entire worksites in Korea and abroad to generate greater business outcomes.

### Quality Management Process



### Power Testing & Technology Institute

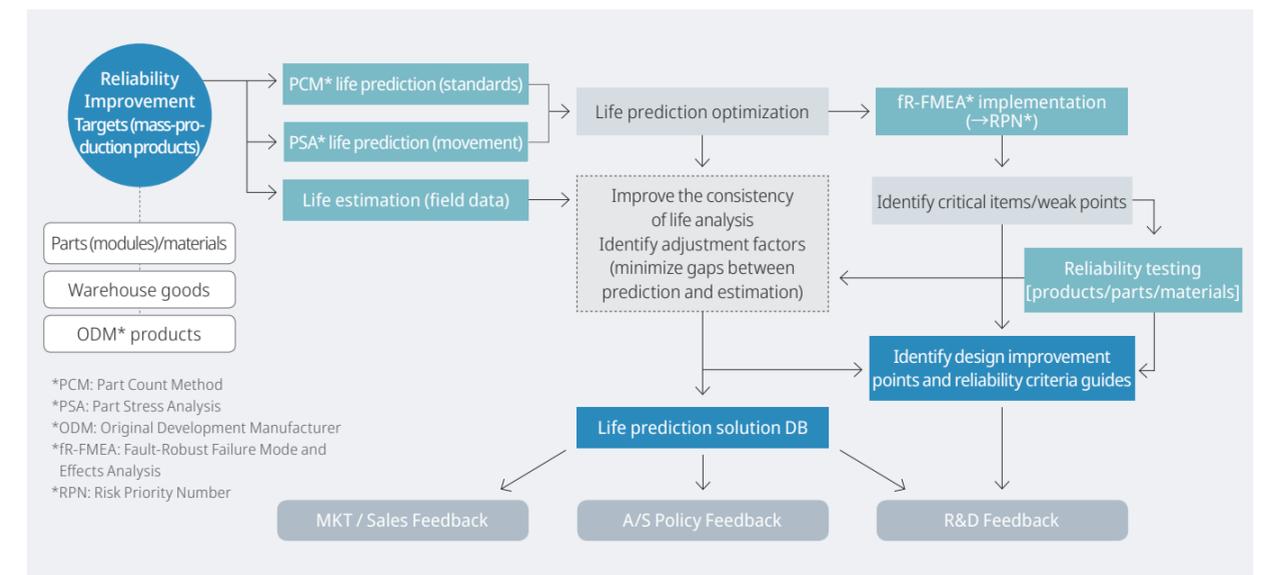
Established in 2000, our Power Testing & Technology (PT&T) Institute represents Korea’s first private-sector testing lab armed with 2,000MVA short-circuit testing equipment, synthetic testing equipment (170 kV 50 kA) for ultra-high-voltage products, high-voltage testing equipment, and reliability testing equipment to provide internationally-recognized official testing services. In particular, the institute plans to add another 2,000MVA short circuit generator by 2022 to the first such generator currently under operation for three years between 2020 and 2022. When this second short circuit generator is completed in 2022, the Institute will be equipped with 4,000MVA short circuit testing capacity in total, and the combination of both stand-alone and parallel operation modes will help resolve the shortage of high power testing capacity and expand our product testing scope and capacity to build testing competitiveness on par with global heavy electrical equipment companies.



### Reinforcing Product Reliability

To improve the quality and reliability of our products, we engage in reliability technology cooperation to set and manage reliability targets for each product, predict the desired service life in the development phase, conduct reliability validations and evaluations, and satisfy project requirements. We comprehensively analyze claim data and field requirements on reliability improvement to elevate the consistency of service life predictions performed on respective products and to undertake foundational activities to establish reliability standards.

We also take a reliability/stability-based design approach throughout the entire life cycle from development to release. Real-life product use conditions are considered (durability, environmental resistance and safety) and field-level failures and safety issues are analyzed, evaluated and reflected in product designs. In so doing, we doubly make sure that we do not provide products or services that may potentially harm the safety of consumers, guaranteeing consumer safety and strengthening our comprehensive customer satisfaction activities in so doing.



### Status of R&D Operations

As a total smart power and automation solutions provider, LS ELECTRIC aims to lead the global market in the area of smart energy delivered through the convergence of power and automation technologies all while facilitating its existing core business. In particular, an R&D productivity improvement system was established to maximize R&D business performance and efficiency, and we focus our R&D capabilities on proactively responding to the rapidly-emerging Digital Transformation and pioneering Smart Energy and Smart Factory businesses. We operate specialized R&D centers in the four areas of Anyang, Cheongju, Cheonan and Busan as well as a R&D center at our Wuxi plant in China to provide localized shop floor support and create synergy with the design division. Furthermore, LS ELECTRIC is the first private sector company to operate a power testing lab (Power Testing & Technology Institute) to elevate its R&D competitiveness.

### Investment Status

As we recognize R&D as the key to our corporate competitiveness, we invest nearly 5.7% of the sales in R&D to gain a sustainable competitive advantage and prepare for the future. Our R&D expenses mainly go to developing next-generation products, products and technology for new business, and core basic technology.

### R&D Expenses



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## Customer Satisfaction

### Major R&D Outcomes in 2020

#### MMC STATCOM Development

We have completed the development of our STATCOM (Static Synchronous Compensator) by deploying MMC (Modular multilevel Converter) technology, a cutting-edge FACTS (Flexible AC Transmission System) solution, and our STATCOM has been installed and is currently under operation at the Godeok Substation. This makes LS ELECTRIC the only Korean business that has established track records in 100MVar and above SVC (Static Var Compensator) and STATCOM, and we will build upon this achievement to further tap into the wider global market beyond Korea.

#### APS Development

We have developed an Arc Protection System (APS) to swiftly detect and extinguish arcs that occur in the switchgear to minimize damage to electrical equipment, casualties and any collateral damage. Our APS is applicable at both 50/60Hz to target the broader international market as well as Korea, and delivers such high-tech functionalities as selective arc quenching, dedicated optical communication and semiconductor contact points to play on par with global businesses and drive our sales in Korea and abroad.

#### RAPIenet+ Development

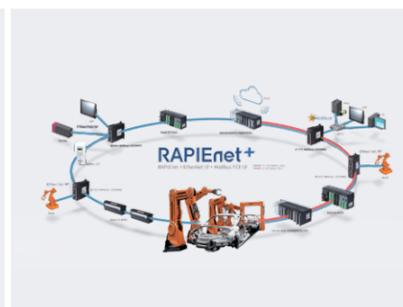
We have completed the development of RAPIenet+, an IEC-approved industrial Ethernet protocol, and its device-specific options to aid in the use of smart factory data. This ensures connectivity among products through the application of independent communication protocols. Our RAPIenet+, developed to meet the market needs for smart manufacturing, is an all-in-one solution that simultaneously supports the three industrial Ethernet technologies of RAPIenet, Mod-bus TCP, and Ether-Net/IP as well as OPC-UA while enabling up to 1Gbps bandwidth connections. This has recently allowed us to substitute major production line equipment in the automobile and semiconductor industries heavily dominated by global companies, and is also expected to contribute to expanding our high-end in-line market in the years ahead.



STATCOM installed at the Godeok Substation



APS



RAPIenet+

### Intellectual Property Strategy

We aim to establish an innovative Intellectual Property (IP) portfolio to respond to rapidly-shifting market conditions and to improve our global business competitiveness. In particular, we continue to acquire IP and build their application infrastructure to be used in such key technology areas of the 4th Industrial Revolution – smart power transmission/distribution, energy efficiency improvement solutions powered by information and communication technology and Direct Current technology, and smart factory technology. In so doing, we not only generate tangible/intangible profits, but also proactively share our technology by transferring our IP free-of-charge to SMEs to promote shared growth and win-win partnerships.

#### IP Registrations and Applications (as of the end of 2020, on a cumulative basis, unit: No. of cases)

Category	Domestic			Overseas		
	Patent	Design	Total	Patent	Design	Total
Registration	2,032	129	2,161	4,336	162	4,498
Registration	935	8	943	720	5	725
<b>Total</b>	<b>2,967</b>	<b>137</b>	<b>3,104</b>	<b>5,056</b>	<b>167</b>	<b>5,223</b>

### Design Management

LS ELECTRIC is the first in the industry to create and operate a design center. Our customers of industrial equipment increasingly demand requirements that are no less specific nor sophisticated when compared to those of consumer goods. This underscores the importance of design as a competitive tool to go beyond Korea towards the broader international market. We reflect customers' emotional and user experiences in product designs all while looking for the most effective application of our technology into products, advancing sustainable design management as a result.

#### New Product Identity

LS ELECTRIC and other major domestic/overseas businesses, as a manufacturer and a supplier of power and industrial automation equipment and systems, engage in the production of a wide array of products that are defined by their application and functionality with diverse forms. Compared to consumer goods, these products are generally developed along a longer cycle and this makes consumers recognize manufacturers according to the unique characteristics that these products deliver. This is how a company's product identity is shaped, and LS ELECTRIC also has its distinctive identity that has been recognized by customers for a number of years.

At LS ELECTRIC, we are exploring a broad array of options to set the trend of the global market in today's era of innovation defined through such key words as Digital Transformation and Smart Connectivity. In line with this, our products in the R&D process are evolving into digital devices with the application of IoT technology to their mechanical structure.

Our product design team has set our unique color palette as DT Gray, DT Blue and DT D Blue based on customer requirements and preferences, and defined our new product identity to create a common set of design characteristics. The application of our new product identity not only drives our response to the age of innovation, but also helped us gain recognition for our design competitiveness as we were honored with winner awards at the iF Design Award, one of the three most prestigious global design awards, for two consecutive years in 2019 and 2020, as well as at various domestic design competitions.

Going forward, we will leverage our new product identity to build top-notch design competitiveness befitting our unrivalled technology prowess and elevate customers' awareness for LS ELECTRIC products.

#### Smart MCCB with LS ELECTRIC's new product identity



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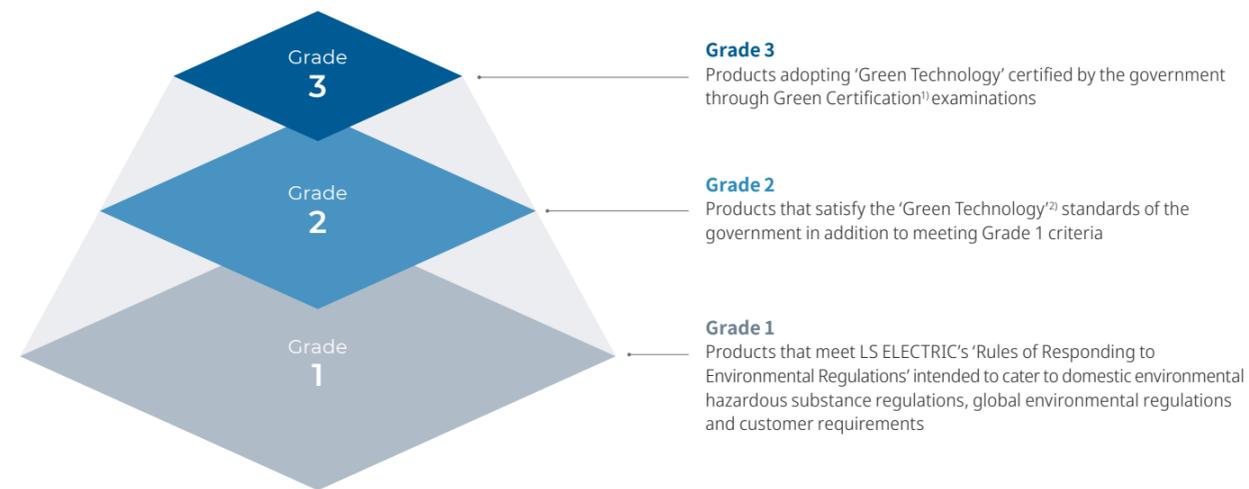
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## Customer Satisfaction

**Green Product Management** LS ELECTRIC defined the 'Green Product Grade Model' to elevate its status as a green energy company for 'Futuring Smart Energy' and to upgrade sustainability management, and is taking a systemic approach to the management of green products. Under this model, all our flagship product models are assessed for their eco-friendliness and each model is assigned one of the three grades accordingly to facilitate the development of customer-oriented green products.

### Green Product Grade Model



1) Green Certification: This governmental certification program aims to specify green technologies and businesses in accordance with the Framework Act on Low Carbon Green Growth to expand private sector's participation in green industries and promote the growth of high-tech markets and industries.  
2) Green Technology: Green Technology refers to technologies that conserve and efficiently use energy and resources throughout the entire socio-economic activity cycle to minimize GHG emissions and pollutant generation in the fields of GHG emission mitigation, energy consumption efficiency improvement, clean manufacturing, clean energy, resource circulation and eco-friendliness.

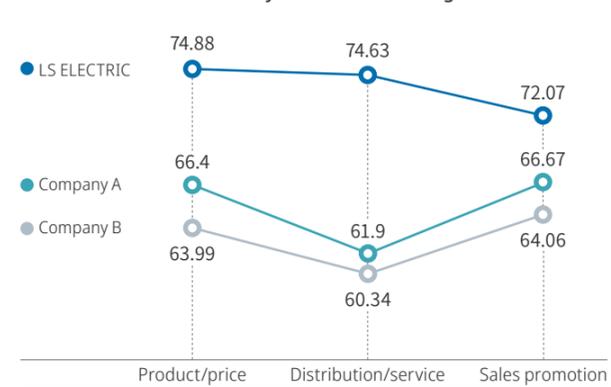
### Customer Satisfaction Survey

We survey domestic/international customers on their satisfaction with our key products. Survey results form the basis of our efforts to identify their requirements and reflect them in our products.

**Electric Power** | We surveyed nearly 200 customers on their satisfaction with our switchgears, one of our flagship products in power solutions business, through the use of a 15-item questionnaire. We scored 74.2 points on average to outperform our competitors.

**Automation** | We surveyed nearly 300 customers on their satisfaction with the quality and reliability of our flagship LV Drive products with a 13-item questionnaire. We scored 81.2 points on average, a significant increase from 74.5 points that we received in the 2018 satisfaction survey.

Customer Satisfaction Survey Outcomes – Switchgear (unit: Point)



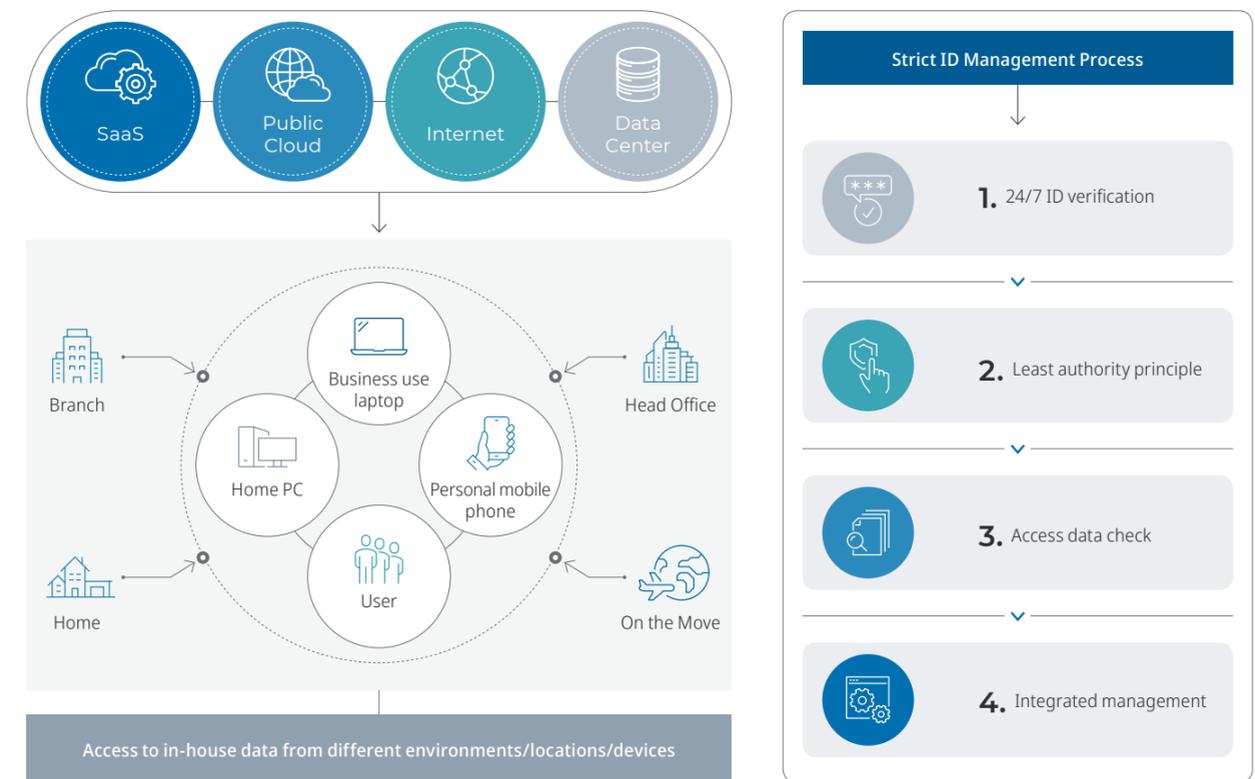
### Customer Data Protection

LS ELECTRIC is fully committed to preventing external threats and internal information leaks. To safeguard customer data, a rigorous ID verification process is underway to ensure that only certified and authorized users and devices can access applications and data. In tandem with this, we protect our applications and users from latest threats on the internet. This Zero Trust security approach is exerting greater impact on the business network security architecture that governs access to in-house applications from outside the company as work from home and contact-free virtual work are emerging as innovative digital business practices. At LS ELECTRIC, security and access-related decisions are made dynamically on the basis of IDs, devices and user contexts while access to critical applications is managed and internal data leaks are prevented in the event of external attempts made to access our internal network through the deployment of EDR<sup>1)</sup>, complete separation of authorities, and the 2-Factor certification.

To ensure our regulatory compliance with domestic and international security legal frameworks (Personal Information Protection Act, GDPR<sup>2)</sup>, CSL<sup>3)</sup>, NIS<sup>4)</sup>, etc.) and to establish the safety of corporate data and personal data assets, we conduct annual security assessments, mock anti-hacker attack drills, source code vulnerability checks, and infrastructure security checks to preemptively respond to any potential emergencies. In response to the rapidly-shifting Digital Transformation landscape, we also provide support for the uninterrupted production system through the deployment and standardization of a public cloud security system and Factory Operating Technology (OT) security.

1) EDR : Endpoint Detection Response  
2) GDPR : General Data Protection Regulation (EU)  
3) CSL : Cyber Security Law (China)  
4) NIS : Network Information Security (Vietnam)

### Zero Trust Access Security Control



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## Customer Satisfaction

### Customer Seminar

Each year, we serve as a proactive participant in domestic and international trade fairs. In 2020, we hosted virtual exhibitions on the online platform to connect to our customers both online and offline.

Customer Seminars Hosted (unit: No. of cases)

Category	Exhibition	Seminar
Power Solutions	5	91
Automation	3	176
<b>Total</b>	<b>8</b>	<b>267</b>

### January

#### ELECRAMA EXPO 2020 | Noida, India

We attended Southwest Asia's largest energy trade show ELECRAMA EXPO 2020 to solidify our brand status in the domestic Indian and adjacent markets. Not only did we publicize our technological capabilities, but also strengthened our network with major accounts and secured new ones.



### February

#### AHR\* EXPO 2020 | Orlando, US

We attended the AHR EXPO 2020 held in Orlando, US, to showcase our wide-ranging automation and power products and solutions in the HVAC sector. The event is North America's largest Air-Conditioning, Heating and Refrigerating exhibition held in major cities in the US since 1930, and LS ELECTRIC has been a regular participant since 2017 to tap into the North American market.

\* AHR: Air-Conditioning, Heating, Refrigerating

### February

#### PV System EXPO | Tokyo, Japan

We participated in the PV Systems EXPO 2020, Asia's largest energy exhibition held as part of the World Smart Energy Week (WSEW). On the strength of our RMU with its proven and extensive track records in Japan, we elevated our reputation as a company recognized for EPC capabilities to provide end-to-end support for PV+ESS power generation business.



### June & July

#### LS ELECTRIC Webinar 2020 | On-Line

We hosted virtual online seminars to communicate with domestic and international customers. These seminars held in relation to our technology and new products served to publicize our global business capabilities.



### October

#### Virtual Day 2020 | On-Line

Under the motto 'No Contact, On Connect', we hosted the non-contact exhibition Virtual Day on our in-house online platform. This enabled us to improve our reputation as a global power business company and promote our advanced Digital Transformation business model.

### November

#### Bitgaram International Exhibition of Electric Power Technology Expo (BIXPO)2020 | On-Line

We participated in BIXPO 2020 organized by Korea Electric Power Corporation as an online power and energy exhibition in order to present our business areas and technology capabilities while publicizing our products powered by cutting-edge technology.



### November

#### Hyundai Steel Technology Exhibition | On-Line

We joined an online technology exhibition supervised by Hyundai Steel to present our products and solutions for power business (GIPAM3000, Retrofit Solution) and automation (Drive Solutions (MVD, H100)) that are applicable to the steel making process.



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## Environment and Safety

LS ELECTRIC believes that green management and workplace safety lies at the core of its management strategy, and aims to create a green, injury-free work environment through A.C.E. (Absolute, Cooperative, and Excellence) activities. We set workplace management standards that are even more stringent than legal standards, and make improvements through monitoring to generate sustainable value.



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**KEY PERFORMANCE & TARGETS**



- Manage risks based on the health and safety management system
- Establish a firefighting and response system
- Create a Clean & Green workplace



- Conducted health and safety consulting for high-risk work
- Improved on old automatic fire detection and alarm devices
- Shut down heavy PM-emitting devices (boilers)



- Reduce GHG emissions to mitigate global warming
- Reduce occupational injury rates

**Environment & safety investments made**

KRW **34.4** billion

**Occupational injury rate**

**0.06** %

**GHG emissions intensity**

**2.27** tCO<sub>2</sub>eq/  
KRW 100 million



**[Goal 6, 12, 13, 15]**  
Guarantee sustainable consumption and production modalities, and strengthen institutional capacity on climate change mitigation

**6.3**  
Improve water quality by minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling

**12.6**  
Adopt sustainable practices and to integrate sustainability information into the reporting cycle

**13.3**  
Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, and impact reduction

**15.a**  
Mobilize financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

**COMMITMENT**

**Gi-Seon Kim** | Leader of Safety & Environment Team, Plant Support Group

The importance of businesses engaging in green business practices and safety management is increasing all across the globe. LS ELECTRIC will manage and reduce pollutants generated from its worksites and provide a safe work environment for employees in practicing ESG management in order to faithfully fulfill its social responsibility.

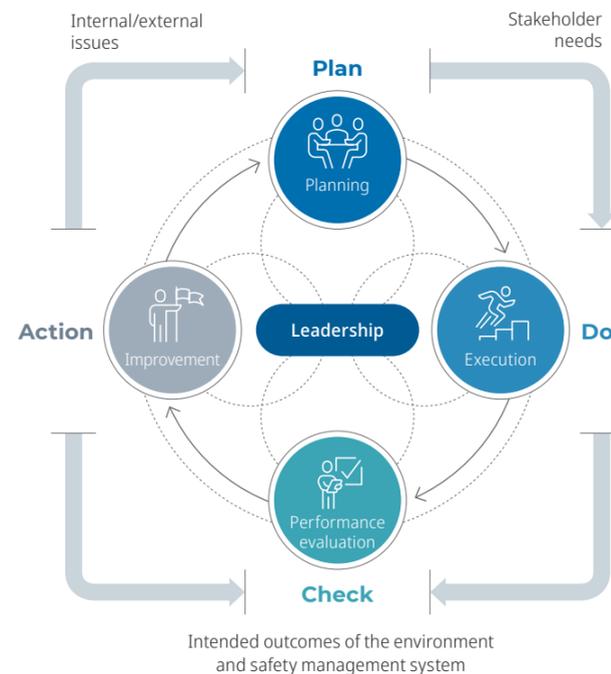
## Environment and Safety

### Environment and Safety Management System

LS ELECTRIC achieves the ISO 14001 and ISO 45991 certifications to manage its environmental impacts and risks at the workplace and respond to domestic/international regulations and stakeholder requirements. We follow the PDCA cycle for planning, resources management and operation, performance evaluation, and improvement while conducting regular internal/external assessments each year to verify our operational efficiency. This forms the basis to identify issues, communicate with stakeholders, and analyze our attainment of the set target and improvement opportunities to reflect such outcomes in our decision-making. To actively join in the voluntary effort made by businesses to keep pollutant generation to a minimum and reduce environmental pollution in so doing, we have obtained the Green Company certification across all our domestic worksites.

Certification	Cheongju	Cheonan	Busan
ISO 14001	Jun. 25, 2020-Jun. 24, 2023 (integrated management certification)		
ISO 45001			
Green Company (Ministry of Environment)	Dec. 19, 2019–Dec. 18, 2022	Aug. 8, 2020–Aug. 7, 2023	Feb. 24, 2021–Feb. 23, 2024

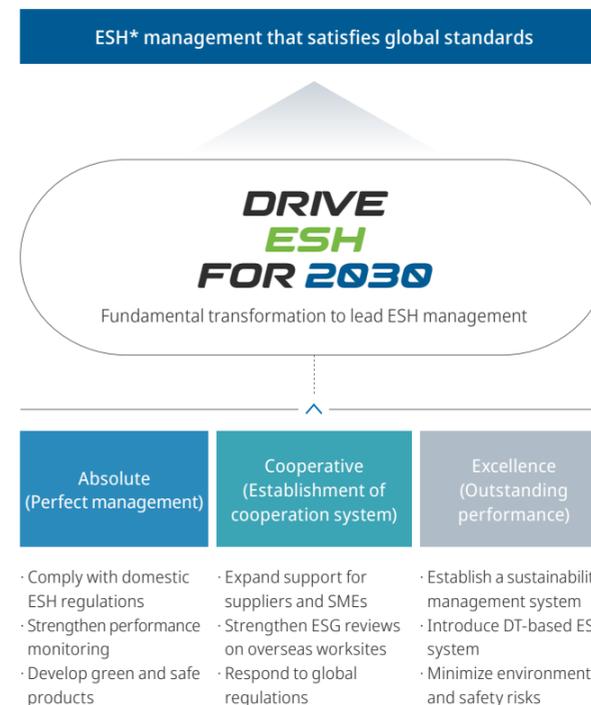
### PDCA Cycle of the Environment and Safety Management System



\*ESH : Environment, Safety, Health

### Environment & Safety Vision and Strategy

We will remain agile in complying with domestic/international regulations and global standards on environment, safety and health while generating exceptional outcomes on the strength of our ESH capabilities to emerge as a Global ESH Company.



### Environment Management

#### Environmental Management Policy

At LS ELECTRIC, we recognize green management as a key pillar of our management strategy and fulfill our corporate social responsibility to establish a green, pollution-free workplace. To this end, we will fully abide by the following principles.

- ① Minimize environmental impacts in the entire process from product design to disposal to fundamentally prevent pollution
- ② Apply green production technologies to minimize the consumption of resources and energy
- ③ Comply with international conventions, laws, internal standards and other requirements in the environmental sector
- ④ Analyze environmental management performance and consistently improve on the identified risks
- ⑤ Provide employees with training and exercises to raise their awareness on environmental preservation and actively engage them in environmental preservation efforts

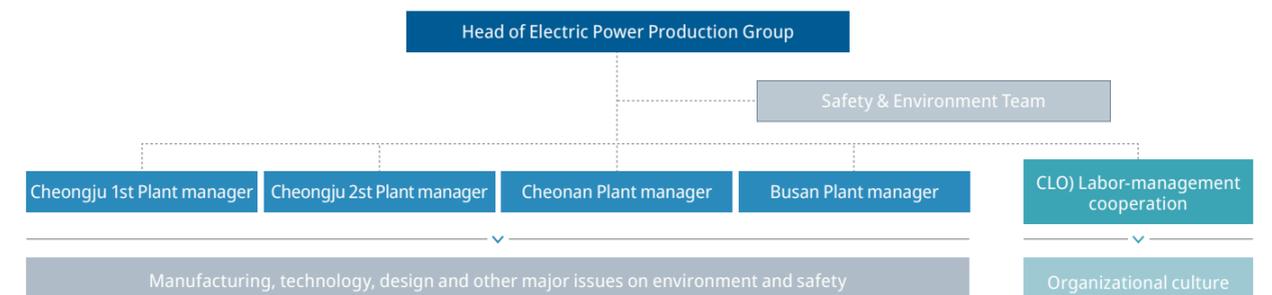
#### Disclosure of Environmental Data

We disclose all our data on environmental impacts that occur in the course of our manufacturing operations through the environmental data disclosure system as well as our official website and sustainability reports. Such data include our general overview, green management, energy/GHG emissions, and pollutant discharge management among others. Going forward, we will fulfill our social responsibility through green management.

#### Environment and Safety Organization

We have established an environment and safety organization and are operating an independent meeting group. The group meets monthly as a decision-making body at the workplace level to identify impact concerning ESH management, share key operational strategies, and make improvements. We make it a rule to immediately respond to any identified risks.

### Environment and Safety Organizational System



### Environment and Safety Training

We provide employees at our worksites and suppliers with training on environmental regulations and waste discharge management. To assist our environmental engineers with capacity building, we offer them wide-ranging opportunities to attend external technical training and gain knowledge on regulatory and institutional amendments.

Training	Description	Target
Introductory training for new hires	· Environmental guidelines · Environmental management status · Purpose of environmental management	New hires
Environmental training for suppliers	· Environmental regulations and systems	Suppliers
General training on environmental management	· Environmental guidelines and goals · Department-specific environmental pollution generation devices · Emergency response exercises · Other necessary training	All employees
Legally mandatory training	· Legally mandatory training on the environment (air, water quality, etc.)	Legal managers
Technical environmental training	· Air/water pollutant management · Waste management · Chemicals management	Working-level staff
Internal environmental examiner development and refresher training	· ISO 14001 requirements · Environmental laws and regulations · Internal audit exercises and evaluations	Department-level environment and safety personnel

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## Environment and Safety

### ESH Information Exchange

Our environment and safety personnel at the worksite are engaged in regular ESH information exchange in relation to tightening environment and safety regulations, systems, and other relevant issues. Issues discussed through such interactions are fully addressed to advance environment and safety management. In 2020, this activity went online and information exchange was conducted through virtual means.

### Support for Suppliers with ESH Capacity Building

We provide ESH support to suppliers to help them reinforce their environment and safety capabilities and ensure regulatory compliance in so doing. We first offer suppliers' environment and safety personnel with training on relevant laws and regulations, and then pay on-site visits to take stock of their preparation of legally-required documents and their awareness on major risks concerning field management so that they can make improvements on their own.

### Technical Support for Discharging Environmental Pollutants

Our Cheongju worksite is joining the program designed to offer technical support for SMEs operating small-scale pollutant discharge facilities in the Chungcheong region where it is located in partnership with the local environmental office. Intensive reviews are conducted on the approvals granted depending on the discharge of pollutants and their level of hazards, and this is followed by on-site visits to provide tailor-made assistance on the treatment of pollutants in consideration of the characteristics of these SMEs, who are then encouraged to develop improvement plans on identified issues and make improvements accordingly.

### Environmental Liability Insurance

We have purchased environmental liability insurance to swiftly provide compensation for any damage that may occur to residents living in the vicinity of our worksites when environmental pollution incidents take place during our manufacturing operations. Bearing in mind that the prevention of such incidents from ever occurring should be our absolute top priority, we will stay vigilant in our manufacturing operations.

### Environment and Safety Management System

LS ELECTRIC is operating a safety, health and environment management system to fully respond to international conventions, governmental laws and policies, and stakeholder requirements. We analyze risks to reduce the emission of air pollutants and waste generated from the production process and to prevent safety incidents while performing annual internal assessments to verify our compliance with this system.

### Environment and Safety Audit

Regular audits are performed to verify our worksites for their compliance with environment and safety regulations. For major risks identified as a result of such audits, immediate improvements are made and follow-up management is conducted through monitoring to ensure compliance.

### Environment and Safety Audit Process



### Audit Activity

Category	Activity	Cycle	Description
Internal	Daily environment and safety audits	Daily	Worksite patrol
	Theme-based safety audits	Monthly	Intensive management of hazardous, high-risk machinery equipment
	Joint labor-management safety audits	Quarterly	Joint audits conducted by the labor union and safety managers
	Firefighting equipment operational status audits	Daily	Audits performed to ensure the normal operation of fire extinguishers, hydrants, and pumps
External	Safety audits performed on project sites	When the need arises	Safety management of product installation sites
Company-wide	ESH operational status audits	Half-yearly	Verifications made on compliance with ESH regulations
Over-seas	ESH audits on overseas worksites	Half-yearly	Audits performed on regulatory compliance at overseas worksites

### Environment and Safety Investment

We continue to invest in minimizing the environmental impact generated from our manufacturing operations and in promoting the health and safety of users. In 2020, such investments focused on the development of green products and the improvement of processes by developing GIS that uses green insulation materials, reducing the input of raw materials, and improving energy efficiency.

### Preliminary Environment and Safety Assessment System

We operate a preliminary environment and safety assessment system to predict, analyze and preemptively respond to environment and safety risks that may occur in making new equipment investments. This allows us to deploy optimal equipment to prevent environmental pollution and incidents and to comply with environment and safety regulations.



### Environment and Safety Investments Made

Category	2018	2019	2020
Green product development	5,879	8,519	17,232
Process improvement	271	14,044	15,704
Investment in environment and safety equipment	405	411	842
Maintenance of environmental and safety equipment	274	875	629
<b>Total</b>	<b>6,829</b>	<b>23,849</b>	<b>34,407</b>

### Environment and Safety Goal and Performance

Category	Goal	Target	Performance	Implementation Task
Environment	Reduce GHG emissions	41,290tCO <sub>2</sub> e (2019 performance)	42,870 tCO <sub>2</sub> e	· Introduce renewable energy at the worksite
				· Switch heating equipment at Cheongju 1 Plant (LNG→electricity)
Safety	Reduce occupational injury rates	0.01% (2019 performance)	0.06%	· Switch to a high-efficiency lighting system (LED)
				· Focus on the safety management of high-risk work (work involving cranes, forklifts, or ladders)
				· Supplement/improve the safety devices for accident-prone production lines

### Performance Indicator Management

We set the cycle of assessments and continuously manage key indicators on energy consumed and pollutants generated from the production process and on support for safe work activities across all our worksites. All employees proactively engage in making necessary improvements through monthly performance management.

Category	Subcategory	Assessment Cycle	Assessment Indicator
Environment	Air pollutants	Monthly	Air pollutant (dust, NOx, SOx) emissions
	Outsourcing of effluent treatment	Monthly	Effluents treated, water consumed
	Outsourcing of waste treatment	Monthly	Waste treated and recycling rates
Safety	Occupational injuries	Monthly	Occupational injury rates
	Safety training	Monthly	Training hours and trainees
Health	Medical expense support	Monthly	Medical expense support for employee health
	Medication support	Monthly	Support for digestive/cold medicines and other basic medications
Climate Change	Power use	Monthly	Power consumed
	Fuel (LNG) consumption	Monthly	Fuel (LNG) consumed
	GHG	Monthly	GHG emissions generated from power and fuel consumption

### Response to Climate Change

LS ELECTRIC manages risks and opportunities from climate change that may affect its business operations, and actively endorses governmental climate change policies. Each year, we join the Carbon Disclosure Project (CDP) to submit our GHG emissions reduction plans and Risk & Opportunity data to widely share our GHG emissions management strategy.

### Climate Change Risk & Opportunity

	Category	Definition
Risk	Regulatory Factors	Burden to respond to carbon regulations in line with increasing energy use (price competitiveness)
	Physical Factors	Prevention and recovery of damage from abnormal climate conditions to worksites and their reflection in facility investments
	Other Factors	Tarnished corporate reputation as a result of customer dissatisfaction with climate change response
Opportunity	Regulatory Factors	Green energy transition (coal - PV and others) and its resulting attainment of the critical level
	Physical Factors	Increasing sales from high-efficiency energy management systems (Smart Grid, FEMS, etc.)
	Other Factors	Device and system integration and its resulting improvement in business competitiveness
		Boosting investment sentiment in proportion to increasing energy management needs in the Industry 4.0 era
		Improvement in corporate reputation as a smart energy leader

## Environment and Safety

### GHG Target Management System

Our Cheongju worksite is subject to the Korean government's GHG Target Management System and receives third-party verifications on its emission sources and quantities. Under this system, our implementation plans and GHG emissions data are checked and our reduction activities are verified to ensure their credibility.

### Reduction of Energy Consumption

We replace old equipment with new ones to improve the efficiency of energy use and reduce our energy consumption in so doing. To this end, we set annual energy reduction and investment plans and monitor our energy consumption on a monthly basis.

Category	Item	Unit	2018	2019	2020
Energy consumption	Power Consumption	MWh	70,317	75,677	80,604
	Power Intensity	MWh/ KRW 100 million (production value)	3.60	4.10	4.27
	Fuel Consumption (LNG)	km <sup>3</sup>	2,733	2,424	2,075
	Fuel Intensity (LNG)	km <sup>3</sup> /KRW 100 million (production value)	0.14	0.13	0.11

※ Fuel consumption and intensity are based on LNG used for worksite cooling/heating

### GHG Emissions Management

We follow the operational guidelines of the GHG and Energy Target Management System implemented by the Ministry of Environment by including our Head Office, worksites, R&D centers and local sales locations in calculating our GHG emissions. From the second half of 2020, our Cheongju 1 Plant switched from LNG to electricity to power its heating system to reduce its emission of NOx that is known as the source of particulate matters. Meanwhile, our power consumption inched up due to the expansion of our Seoul Office (Yongsan), investment in automation equipment, and use of cooling/heating devices powered by electricity.

Category	Unit	2018	2019	2020
Fuel	tCO <sub>2</sub> eq	6,576	5,914	5,288
Electricity	tCO <sub>2</sub> eq	32,785	35,376	37,582
<b>Total</b>	<b>tCO<sub>2</sub>eq</b>	<b>39,361</b>	<b>41,290</b>	<b>42,870</b>
<b>Intensity</b>	<b>tCO<sub>2</sub>eq/ KRW 100 million</b>	<b>2.01</b>	<b>2.24</b>	<b>2.27</b>

### Other GHG Emissions

In addition to emissions from fossil fuel and power consumption, we also calculate and manage GHG emissions generated from the production process and the installation of products at customer sites. We use SF<sub>6</sub> gas as insulation materials that are injected into our GIS and RMU products, and this gas is 23,900 times higher in GWP (Global Warming Potential) than CO<sub>2</sub>. This prompted us to increase the manufacturing of more eco-friendly products, such as Dry-Air Insulated Switchgear(DAIS), Solid Insulated Switchgear (SIS) and GIS that uses g<sup>3</sup> with significantly low GWP.

Category	Unit	2018	2019	2020
Others	tCO <sub>2</sub> eq	808,555	563,472	534,098

**Gridsol Station investments made at Cheongju 1 Plant** | To supply green energy and reduce GHG emissions as a result, our Cheongju 1 Plant installed a rooftop Gridsol Station that consists of a 495kW photovoltaic power generation system and a 1,500kWh ESS. This system generates nearly 435MWh electricity each year which is sold to Korea Electric Power Corporation, and this is expected to reduce GHG emissions by 200tCO<sub>2</sub>eq. Our Smart LV switchgear also serves to deliver energy management and operational efficiency improvement services.



### Environmental Pollutant Management

#### Air Pollutant Management

In line with the mounting public interest in the generation of high-concentration particulate matters, more stringent regulations are being introduced for the management of air pollutants. To proactively respond to the Clean Air Conservation Act, we have set our internal emissions standards at 50% or under of the legally permissible thresholds and manage our air emissions accordingly.

Category	Unit	2018	2019	2020
Dust	kg	677	1,033	1,554
NOx	kg	3,901	2,508	2,480
SOx	kg	-	-	-
<b>Total</b>		<b>4,578</b>	<b>3,541</b>	<b>4,034</b>

**PM reduction agreement for the winter season** | Particulate Matter (PM) reduction activities gained importance as it was discovered that contributions of PM 10 to the concentration of PM 2.5 were 1.5 times higher in the central region compared to the metropolitan area between December 2019 and January 2020. This urged our Cheongju and Cheonan worksites and other certified Green Companies to sign a voluntary agreement with the Geum River Basin Environmental Office in March 2020 to engage in PM reduction activities.



**Predictive motor maintenance program** | Our PoC (Proof of Concept) program on predictive motor maintenance supports predictive modeling for failure diagnoses and residual life assessments by analyzing vibrations and current amounts through the sensors and measurement devices installed on power motors, and has been deployed for air pollutant control equipment at our Cheongju 1 Plant. This program allows us to detect microscopic bearing defects and to appropriately operate air pollutant control equipment through early maintenance.

### Water Consumption and Effluent Treatment

As of 2020, our water withdrawal amounted to 187,000 tons in total from water systems located in the vicinity of respective worksites. Our effluent discharge increased due to the effluents generated from boilers installed at our Busan worksite and the maintenance of production lines at our Cheongju worksite. All effluents generated are lawfully disposed of with the help of professional treatment service providers. We will repair old pipes and mitigate our use of tap water to consistently reduce our water consumption.

Category	Unit	2018	2019	2020
Water consumed	km <sup>3</sup>	175	165	173
Water reused	km <sup>3</sup>	-	-	-
Effluents discharged	m <sup>3</sup>	22	28	152

### Waste Management

Due to the inherent characteristics of electric equipment manufacturing, metal pieces account for the majority of waste generated from our worksites. Discharged waste is sorted out according to their recyclability and is treated lawfully and properly. In 2020, more than 82% of waste was recycled, and we will endeavor to improve the yield of our raw materials and shift to compact form factor products to minimize the generation of waste.

Category		Unit	2018	2019	2020
Waste discharged	Amount General	ton	4,250	4,386	3,827
	Designated	ton	106	78	123
	Recycling rates	%	87	86	82

### Waste Treatment Process



**Waste treatment company assessment and management** | To verify the proper treatment of waste on the part of treatment service vendors in the final waste disposal process, we review their approval/license documents for any non-compliance and conduct on-site checks prior to signing contracts. Furthermore, regular due diligence is performed on such vendors to ensure there is no incident of regulatory non-compliance.

### Chemicals Management

We handle an extremely small amount of hazardous chemicals to test some of our products. To ensure the safety of our employees and users, we minimize the use of such harmful substances and switch to harmless ones. In case it is not feasible to find less hazardous alternatives, we obtain approval from the Ministry of Environment and manage these chemicals accordingly through off-site risk assessments, safety training for employees handling such chemicals, and verifications performed by professional institutions for regulatory compliance. We take all necessary precautions in using minimal amounts of harmful chemicals, and also establish an emergency response system to promptly address any chemical leaks and prevent accidents from occurring.

Category	Unit	2018	2019	2020
Total quantities of hazardous chemicals handled	EA	2	2	2
Hazardous chemicals consumed	kg	1.6	1.5	1.5

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## Environment and Safety

**Chemical inventory** | We build a chemical inventory by conducting complete compositional analyses on mixtures to identify the hazards of any and all chemicals that we handle at our worksites and to create a database of relevant data and systematically manage them. This enables us to verify chemicals for their toxicity, handling restrictions, prohibition of use, and the need for preparations against possible accidents. We also display information concerning special health and safety examinations, registered chemicals, work environment measurements, and firefighting-related management of type-specific dangerous substances.

### Efficient Use of Resources

Primary resources that go into our major products include conductor steel materials and non-ferrous metals, and resins are consumed to manufacture product enclosures. We implement process-specific mitigation measures to ensure the efficient use of resources, reduce manufacturing losses, and improve yields. We pursue compact form factor products from the design phase to minimize the generation of waste.

	Category	Unit	2018	2019	2020
Raw materials	Steel	ton	7,908	8,203	8,162
	Non-ferrous	ton	3,512	3,324	2,841
	Resins	ton	626	532	352

**Raw material and waste reduction** | We are fully implementing NWT activities to improve on the issues identified in the production process. A range of such activities have been undertaken to reduce our use of chemicals and the occurrence of defects while improving on the input of raw materials. Best practice contests are held each year to encourage all employees to join in NWT activities.

NWT* Activity	Expected Benefits
Alter VI AIR Conditioning work	Reduce the use of cleaning agents
Install ABH250c automatic line mechanism dislocation sensor	Reduce the occurrence of defects
Improve the ACB bolt structure	Reduce the handling of chemicals
Change MCSG/M rear duct subsidiary materials	Curb the input of unnecessary materials
Install moving backspring feeders	Improve the yield of raw materials
Improve the wrapping methodology of LV	Reduce the generation of packaging waste
Change the 24kV MCSG Panel heating plate structure	Curb the input of unnecessary materials

\* NWT (Natural Working Team): Self-initiated activities to attain productivity/quality targets

## Workplace Safety Management

### Safety and Health Management Guidelines

LS ELECTRIC has set safety and health management guidelines and is stringently abiding by them to create a safe and pleasant workplace for employees and stakeholders and contribute to society at large with an aim to live by its management philosophy of respecting the dignity of people.

- Place health and safety impacts before all else across all products, work areas, equipment, processes and technology
- Comply with applicable laws and regulations and external requirements, and consistently elevate the level of management through performance improvement
- Provide training and exercises to improve safety awareness and establish a safety-driven culture through mutual care and respect among employees
- Improve productivity through health promotion and maintenance and the prevention of illnesses, accidents and incidents
- Develop safety management plans through the prediction and identification of potential risks and undertake systemic activities concerning implementation, risk assessments, and corrective measures

### Safety Rules

- Verify the suspension of equipment in operation prior to taking action on errors
- Wear protective gear (safety helmets, shoes, belts, etc.)
- Cover areas with high risk of being jammed (coverings, wool, sleeves, etc.)
- Keep eyes forward while walking
- Observe the internal speed limit of 10km/h when driving forklifts and other unloading and transporting machinery
- Install safety coverings and earthing systems for power charging parts
- Verify the isolation of power and wear detectors prior to electrical work
- Put MSDS\* warning labels
- Ban access and place strict controls below lifted loads
- Secure safe passages

\* MSDS: Material Safety Data Sheet

### Injury Statistics

Category	Unit	2018	2019	2020
Occupational injury rates*	%	0.03	0.01	0.06
Lost workdays	No. of days	487	207	894

\*Occupational injury rates and lost workdays: Cheongju, Cheonan, Busan, and the R&D Campus

### Occupational Safety and Health Committee

We operate the Occupational Health and Safety Committee to deliver a safe work environment: labor and management jointly deliberate and decide on major health and safety issues to make necessary improvements. Key deliberation items include occupational injury prevention plans, employee safety/health training and health management, development and amendment of health and safety regulations, and other general management issues concerning employee health and management. Work is currently underway to improve on all the items deliberated in 2020.

## Health and Safety Target Management System

The health and safety target management system is operated for all departments to include safety assessment items and measure performance under the department-level Management Innovation Program (MIP). Safety is assessed for all departments to establish a self-directed safety management system and engage them in health and safety activities.

### Workplace Safety Audits

To prevent high-risk processes and lower the risk of accidents, we strengthen corrective/preventive activities mainly on processes with high potential risks. Training and improvements are implemented for such high-risk processes through accident analyses and risk assessments while high-risk equipment receives safety inspections more stringent than legal requirements to reinforce safety for high-risk machinery. Plant manager of respective plants perform direct monthly on-site audits to improve on vulnerabilities in safety management.

### Work Environment Improvement

We measure and assess the exposure of our employees to hazardous factors - noise, dust, and harmful chemicals - during the manufacturing process. This allows us to improve on identified issues and create a pleasant work environment, promoting the health and productivity of our employees. Work environment measurements are conducted twice a year through external measurement organizations. As a result of continuous improvements, the exposure of hazardous factors in the work environment is managed and maintained below the legally permissible thresholds (including noise).

### Safety Training

We operate dedicated safety training centers to improve the quality of such training and to better engage trainees and maximize its effectiveness through videos and other visual materials and simple individual assessments following the completion of training. Our safety training centers provide various theme-based training to outsourcing partners, in-house partners and new hires.

	Category	Unit	2018	2019	2020
Training	Training hours completed (cumulative)	hour	91,325	89,438	71,460
	Participants (cumulative)	No. of persons	19,458	18,960	13,272

**Excellence Award granted to our Cheongju worksite under the win-win cooperation program in 2020** | Our Cheongju worksite received the Excellence Award in the manufacturing category in the Health and Safety Win-Win Cooperation Program\* Best Practice Competition 2020 supervised by the Korean Ministry of Employment and Labor.

\* Health and Safety Win-Win Cooperation Program: This program aims to improve the health and safety performance of suppliers and prevent occupational injuries at the workplace

### Safety Management for Projects Awarded

We created a construction safety organization to tighten safety management at the site of awarded projects. Continuous reviews are performed at the Head Office level and the implementation of health and safety management plans is monitored to minimize the risk of accidents.

## Emergency Response

We conduct emergency drills each year to swiftly take action in the event of an emergency and minimize any casualties or property damages. Manuals, including the list of emergency responses and scenarios, were developed to identify and assess the possibility of worksite emergencies and accidents while a response system has been established under real-life scenarios to review corresponding action guidelines.

### Health and Safety Assessments on R&D Centers

We operate R&D centers in Anyang, Cheongju and Cheonan. The R&D Center Safety Management Commission collects health and safety issues and suggestions from researchers to remove substantial risk factors. Three risk factors were defined as electricity, chemicals, and weights that may potentially cause accidents in the lab environment, and regular/theme-based reviews and precision safety audits are performed continuously.

### Prevention of the Spread of Infectious Diseases

We are developing an infectious disease response system to prevent the outbreak and spread of infectious diseases that could harm the health of our employees. In consideration of the infectious diseases designated by the Korea Centers for Disease Control and Prevention, our worksites secure necessary supplies in advance and implement prevention and protection activities according to the phase-specific work flow chart. To cope with COVID-19, internal guidelines are up and running as suggested by the public health authorities.

### Health Promotion Activity

We provide comprehensive health check-ups to employees and their spouses each year to help our employees promote their health. Those diagnosed with specific medical conditions as a result of such check-ups receive follow-up examinations and tailor-made health management suggestions. We also support our employees to pay their healthcare expenses so that they can fully and comfortably focus on treatment in case they become ill.

Phase	Decision Criteria	Response	Response Measure
Concern (Blue)	Occurrence of patients with a new infectious disease	Prevention	<ol style="list-style-type: none"> <li>Monitor the spread of the concerned disease</li> <li>Secure hygiene and protection supplies</li> <li>Offer individual hygiene improvement training</li> </ol>
Attention (Yellow)	Outbreak of the disease in Korea	Symptomatic cases	<ol style="list-style-type: none"> <li>Check confirmed cases (healthcare institution)</li> <li>Take temporary quarantine measures when needed</li> <li>Distribute thermometers and hand sanitizers to all departments</li> </ol>
		Prevention	<ol style="list-style-type: none"> <li>Identical to the Concern phase</li> </ol>
Alert (Orange)	Dissemination of the disease across communities	Patient	<ol style="list-style-type: none"> <li>Separate confirmed patients</li> <li>Track and monitor infection routes</li> </ol>
		Close contacts	<ol style="list-style-type: none"> <li>Monitor outbreak during the incubation period</li> <li>Minimize business travel/mobility</li> </ol>
Severe (Red)	Occurrence of confirmed cases at the worksite	Total	<ol style="list-style-type: none"> <li>Check all employees for a fever</li> <li>Implement prevention activities at the worksite</li> </ol>



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Core Issue



# Shared Growth

Shared growth is the common denominator that forms the management philosophy that enables sustainable growth of LS ELECTRIC and its numerous suppliers. We value each and every supplier as treasured partner in our past, present and future.

To drive the sustainable growth of our partners, we implement shared growth policies from supporting core capacity-building, financing and facility investment to developing a sound supply chain through subcontract regulation training and the shared-growth payment system. We will join hands with suppliers to disseminate and establish a culture of shared growth across the entire supply chain.



Purchases made from ACE Club members

KRW **233.5** billion

Financial support for suppliers

KRW **11** billion

Suppliers using the shared growth payment system

**788** companies



**[Goal 17]**  
Revitalize the global and supplier partnership for strengthened implementation tools and sustainable development

**17.13**  
Enhance global macroeconomic stability, including through policy coordination and policy coherence

**17.17**  
Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

KEY PERFORMANCE & TARGETS



- Launch activities to support customized management capacity improvement
- Adopt standard subcontract forms among suppliers
- Facilitate benefits sharing



- Supported 34 suppliers with customized capacity improvement through the capacity assessment system
- Completed the adoption of primary-secondary supplier standard subcontract forms for 30 suppliers
- Rated 'Excellent' in the Win-Win Growth Index for 5 consecutive years



- Continue with shared growth activities to generate outcomes
- Diversify communication channels through the use of contact-free technology
- Disseminate a culture of fair trade into secondary/tertiary suppliers

**COMMITMENT**

**Ki-Bok Kim** | Leader of Win-Win Growth Team, Electric Power Production Group

LS ELECTRIC strongly believes that it is possible to achieve sustainable growth in the face of any and all challenges if we join hands with suppliers for ceaseless innovation. We endeavor to disseminate a culture of fair trade into primary, secondary and tertiary suppliers while undertaking a range of shared growth programs to support our suppliers with core capacity-building, financing, technology protection and smart factory deployment. We also harness contactless technology for communication to further spread a culture of shared growth.

## Shared Growth

### Establishing a Culture of Fair Trade

#### Signing and Fulfilling Fair Contracts

To comply with the Fair Trade Act and the Subcontracting Act and promote contractual fairness, we sign the Basic Trade Contract and the Standard Fair Trade Subcontract Agreement with suppliers each year. In 2020, the Contract was concluded with 566 subcontractors, and it reflected the standard subcontract agreement recommended by the Fair Trade Commission (FTC) and contractual provisions amended in 2020. In particular, the Contract fully integrated provisions to ban the unjustified request for technical documents and the unjustified demand for payments to help establish fair and transparent business relationships with suppliers. In signing the Contract, the Ethics Management Pledge is also included to encourage suppliers to comply with general contract-related ethics provisions. In 2020, we signed the Standard Fair Trade Subcontract Agreement with 327 suppliers to demonstrate our commitment to fair trade and win-win cooperation.

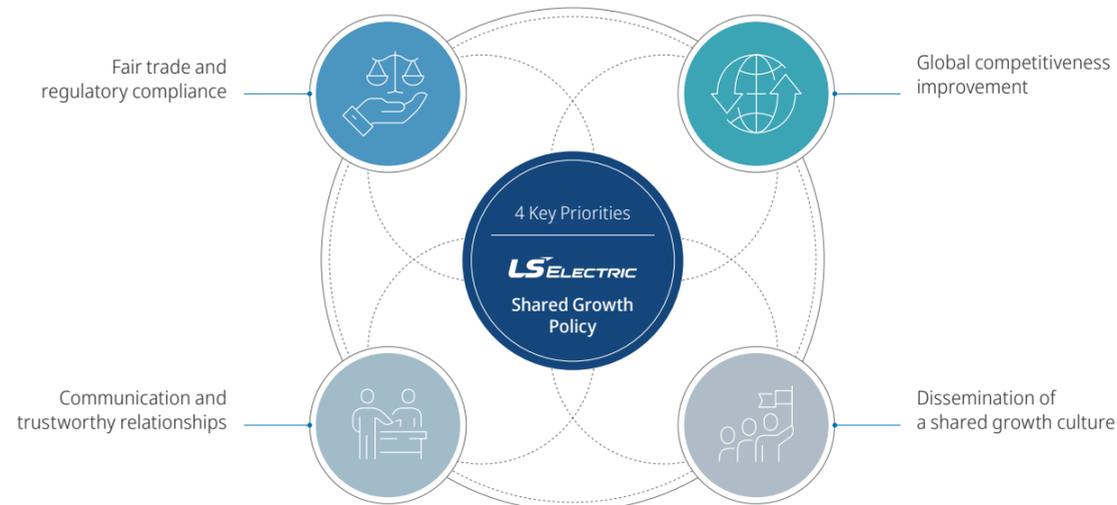
### Prevention of Regulatory Violation and Promotion of Regulatory Compliance

#### Fair Trade Activities for Win-Win Partnership

The four action plans for win-win cooperation – signing contracts through a fair process, ensuring a fair supplier selection process, operating the Internal Subcontracting Audit Committee, and issuing and archiving written contracts – are reflected in our corporate standard rules on domestic procurement and supplier management, and are fully implemented accordingly. This allows us to perform risk assessments and preliminary work consultations to preemptively and regularly monitor any possibility of regulatory non-compliance. To conduct risk assessments, the Internal Subcontracting Audit Committee meets every month to deliberate on the risk of delaying payments to suppliers, the qualifications of newly-registered suppliers, and the appropriateness of supplier contract termination procedures to prevent non-compliance with the Subcontracting Act in so doing.

Furthermore, quarterly procurement process monitoring is performed to additionally review our regulatory compliance in signing subcontracts and the occurrence of unjustified contractual practices. Under the supervision of the Business Audit Team, ethics management surveys are conducted on suppliers and the cyber reporting channel is operated to regularly monitor any non-compliance with fair trade regulations. In case it is highly likely to violate the Fair Trade Act or it is extremely difficult to determine the violation of the Act in the course of work, preliminary work consultations are made with the help of the compliance officer engaging in preliminary consultations or offering legal advice.

### 4 Key Priorities of Our Shared Growth Policy



### Dispute Resolution Mechanism

A mechanism is up and running to expedite the resolution of disputes with SME suppliers. This addresses non-payment or payment delays that may occur in subcontract deals entered into between LS ELECTRIC and its suppliers as well as unfair practices on receipt of goods, product returns, subcontract payment decisions and amount reductions, and its scope spans issues that occurred within three years from the date of contract closure.

In addition, we gather difficulties experienced by suppliers on a quarterly basis so that relevant departments (procurement, production, design, quality, etc.) can make necessary improvements, and use our shared growth portal TOPS to operate the subcontract dispute resolution mechanism to prevent disputes from occurring and promote communication and cooperation in doing business with our suppliers.

### Post Verification of the Legality of Subcontracts

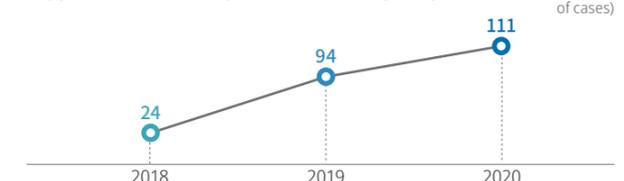
Each year, quarterly monitoring is performed on our transactions with suppliers who signed the Standard Fair Trade Subcontract Agreement to independently review any non-compliance with the obligations or prohibitions imposed on us as a large business under the Subcontract Act. As a result of monitoring conducted four times in 2020, we signed the Basic Trade Subcontract with all 327 suppliers with whom we also signed the fair trade agreement, and unfair decisions on subcontract payments or the imposition of unfair special provisions did not occur.

In the event of design modifications or change in raw material prices, we surely adjust prices for suppliers, and technical data requests are issued following prior consultation with suppliers in requesting the provision of suppliers' management data. We have made payments within 60 days as stipulated by law, and in making payments with alternatives to bills of exchange, we set the date of maturity at 60 days and made payments in time.

### Investigation into Supplier Difficulties and Quality Impairment

To secure quality and establish fair and reasonable business relationships, we collect and manage difficulties raised by suppliers in doing business with us as well as incidents of quality impairment. We have done so on a quarterly basis since 2020, and gathered a total of 111 cases of supplier difficulties and quality defects – mold rentals/equipment repairs, non-payment, failure to respond to design modification requests, and unclear inspection criteria - and investigated these issues and actively improved on them.

### Supplier Difficulties Fully Addressed through Improvement



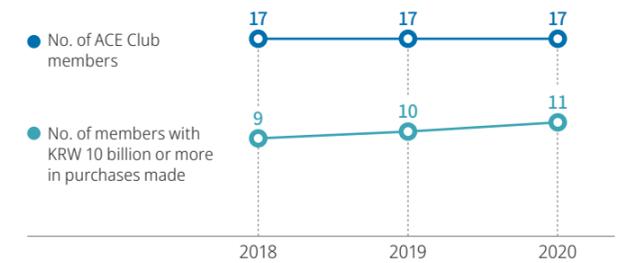
### Support for Suppliers' Growth and Development

#### ACE Club Operation and Support

Our ACE Club aims to select outstanding suppliers based on the three criteria of Activity (taking swift action), Challenge (pushing the envelope) and Excellence (achieving top-tier performance as an exceptional partner) and to offer guidance on quality, production and overall management and to recognize their status as a shared growth partner. This program was launched back in 2008, and members are chosen through annual comprehensive assessments on their quality, on-time delivery, cost competitiveness, and advocacy for shared growth. ACE Club members are eligible for wide-ranging benefits including productivity improvement activities, domestic/overseas benchmarking and innovation exchange activities as well as preferential payment conditions, and are assisted in developing their global competitive edge.

### ACE Club Membership

(unit: No. of companies)



### Purchases from ACE Club Members

(unit: KRW 100 million)



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## Shared Growth

### ACE Club Innovation Exchanges

We operate ACE Club Innovation Exchanges mainly attended by working-level employees with expertise from respective suppliers to share common practices and launch practice-based innovation activities in order to generate mutual synergy. Under this Action Learning activity, suppliers set their individual annual activity goals, identify tasks, and improve their execution to eventually generate substantial outcomes. In 2020, the 'Next-generation Leader Reading Club' was attended by 17 suppliers to select books in the fields of economy, business and the humanities and engage in discussions to explore management insights for innovation. Our ACE Club Innovation Exchanges has produced a high level of satisfaction from the CEOs of respective suppliers as well as attending working-level employees, and will be operated in a way to generate tangible performance with working-level participants leading the execution.

### CSR Activities Undertaken with Suppliers

Our annual 'Love Volunteering' activities are launched each year to join hands with suppliers in contributing to local communities and practicing sustainable management. In March 2020, CEOs of 17 ACE Club members visited the Community Chest of Korea in North Chungcheong to donate KRW 2 million to help those affected by COVID-19. LS ELECTRIC and the ACE Club share the social responsibility philosophy that contributing to the local community forms the cornerstone of fulfillment of corporate social responsibility, and pursue win-win growth and sharing-driven management through CSR activities.



Next-generation Leader Reading Club

Special donations made for COVID-19 support

### ACE Club Reflection

Our ACE Club Reflection program intends to review ACE Club activity outcomes over the year, encourage members to identify implications on their own activities, and discuss ways to facilitate ACE Club operations in the upcoming years. For the period of one year, the ACE Club helped strengthen partnerships between LS ELECTRIC and its suppliers through CEO communication events and CSR programs in addition to such capacity building activities as CEO Seminars, domestic/overseas benchmarking and Innovation Exchanges. Last December, the ACE Club Reflection served to look back on the significance of wide-ranging activities undertaken for the year, share ideas on necessary improvements, and explore ways to further boost the competitiveness of the ACE Club. LS ELECTRIC plans to continuously develop diverse motivation measures and support programs to facilitate the ACE Club.

### Strengthening Support for Shared Growth

#### Financial Support

We support low interest rate loans to suppliers to help facilitate their financing of facility investment for productivity improvement. In 2020, KRW 31 billion funds were raised in total – KRW 3.6 billion in direct support, KRW 14.8 billion in combined support, and KRW 12.6 billion in special support – and KRW 11 billion was provided to 60 primary and secondary suppliers to contribute to improving their financial liquidity and business stability. In 2021, we will ensure that wide-ranging benefits are provided to primary and secondary suppliers in need of funding assistance. In addition to low interest rate loan support, we endeavor to improve subcontract payment conditions and to increase the rate of cash payments to help increase the cash liquidity of suppliers.

#### Suppliers That Received Support

(unit: No. of companies)

Category	2018	2019	2020
Direct	28	24	28
Combined	22	25	17
Special	13	13	15
<b>Total</b>	<b>63</b>	<b>62</b>	<b>60</b>

#### Financial Support Provided

(unit: KRW 100 million)

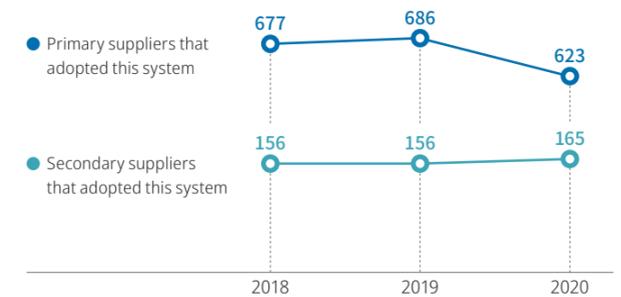
Category	2018	2019	2020
Direct	24	36	48
Combined	70	74	39
Special	20	8	23
<b>Total</b>	<b>114</b>	<b>118</b>	<b>110</b>

### Shared-Growth Payment System

We introduced the shared-growth payment system to improve payment conditions for suppliers: this system allows secondary and tertiary suppliers as well as primary suppliers to extend secured loans of credit sales based on LS ELECTRIC's credit. As of 2020, a total of 788 primary, secondary and tertiary suppliers benefited from shared-growth payments valued at nearly KRW 923.1 billion under this system. Our shared-growth payment system will assist suppliers in duly receiving their payments and resolving concerns over dishonored payments to create a sound ecosystem along the supply chain.

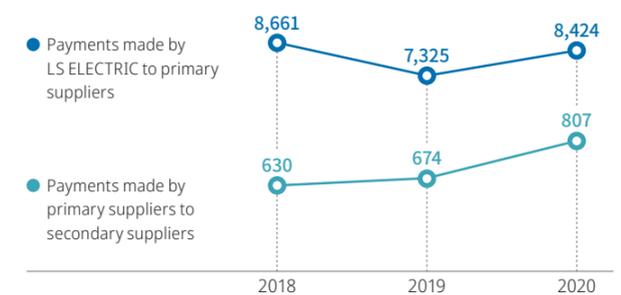
#### Suppliers That Introduced the Shared-Growth Payment System

(unit: No. of companies)



#### Performance of the Shared-Growth Payment System

(unit: KRW 100 million)



### Purchasing (Investment) Support

When suppliers need to invest in facilities (IT, measurement and carrying equipment among others), we put to use our purchase capabilities to support their purchasing operations. Our suppliers are assisted to make purchases under competitive conditions ranging from the selection of companies and the review of amounts, and this supported three suppliers with making investments in 2020.

### Support for Smart Factory Development

To promote the balanced growth of SMEs and create an innovative industrial ecosystem, we have raised KRW 3 billion in funds to support smart factory development through win-win partnerships among small, medium and large businesses. Under this funding program, we assist our suppliers in strengthening their competitiveness by sending mentors with expertise on smart factory development, providing consulting on smart factory roadmap development, and delivering tailor-made solutions based on LS ELECTRIC Tech Square. As of 2020, a total of 36 suppliers have attended this program to retrofit their manufacturing/inspection equipment, improve and expand their systems, improve their IT infrastructure and introduce relevant solutions.

### Support for Early Payment

To promote win-win partnerships with small/mid-size suppliers who are financially strapped amid the COVID-19 pandemic, we have expedited our payments by 4.6 days on average from the regular payment dates and made early payments valued at nearly KRW 120 billion on three different occasions. This surely helped our suppliers pay for their raw materials, make facility investments and develop components as planned. Notably, we have made all cash payments for contracts valued at KRW 100 million or under since 2014 to help promote the management stability of our suppliers.

## Shared Growth

### Green Management

To help suppliers reduce their generation of GHG emissions and environmental pollution, we have made it mandatory to perform environmental assessments in addition to making general, quality, and process assessments in the supplier evaluation process. In evaluating new suppliers, stringent environment and safety assessment standards apply specifically to those parts categories where hazardous chemicals management plays a key role due to their involvement of lamination, plating and heat treatment processes. To effectively manage harmful substances, we have established an integrated substances data management system in 2020 to obligate our suppliers to register their test reports and certificates of guarantee concerning RoHS or REACH. We also follow our independently-developed 'green purchasing guidelines' in sourcing eco-friendly products.

Green Purchases Made (unit: KRW million)



\* LS ELECTRIC's green purchasing: We give precedence to RoHS-conformant raw materials in our sourcing process, and make purchases in accordance with our green purchasing guidelines. We also prioritize the purchase of office automation devices (laptops, monitors, etc.) certified under the Environment Product Declaration program to minimize our environmental footprints.

### Establishing a Conflict Mineral Regulation Response System

As conflict mineral regulations, mainly adopted in the US first, increasingly spread to Europe and other advanced nations, this prompted us to respond to such regulations and develop a response system to prevent risks that may occur at our suppliers in relation to conflict mineral regulations. In particular, we conduct briefings and trainings on an on-going basis to establish the consistency of conflict mineral data provided by suppliers as the procedures to verify the use and source of conflict minerals, contained in the parts and raw materials that they supply, play a key part in conflict mineral management. Since 2020, we have made it mandatory to include provisions on 'compliance with the ban on minerals sourced from conflict areas' in concluding the Basic Trade Contracts with suppliers. LS ELECTRIC will continue to advance its conflict mineral management system in collaboration with suppliers and respond to tightening regulations implemented in the EU and other global regions to take a step closer to sustainability management.

### Support for the FTA Country-of-Origin Management System

In response to an increasing number of FTAs concluded across the globe and related customer requirements, we assist suppliers in establishing an FTA country-of-origin (COO) management system and consigning COO management to licensed customs agents to ensure the consistency of their COO certificates and minimize the risk of post-verifications. A total of 47 suppliers were supported in developing a COO management system, receiving COO work process consulting and FTA COO management training, and developing dedicated FTA personnel. In addition, we provided free-of-charge consulting to six other suppliers through government-assisted projects. Such endeavors allowed our customers to post nearly KRW 5.5 billion in customs benefits as of 2020, and our suppliers to build capabilities to stably perform COO management. LS ELECTRIC aligns its COO management system with that of suppliers to respond to external requirements through interactive communication.

### Technology Protection

In line with aggravating damage caused to SMEs due to the leak of trade secrets, we introduced the Certification of Original Documents on Trade Secrets to assist suppliers in protecting their technology and trade secrets. Operated by the Korea Institute of Patent Information, this certification was designed to confirm the ownership of SME's proprietary technology and business information, and can be used by our suppliers to prepare for any theft or leak of such critical corporate assets. In 2020, we helped protect a total of 22 technologies and trade secrets, and we plan to extend the scope of this system to support suppliers wishing to protect their technology.

## Communicating with Suppliers and Disseminating a Culture of Shared Growth

### New Year's Greetings and Benefits Sharing

Each year, events are held to make 'New Year's greetings and commitment to shared growth for LSpaartnership' in January and to 'share Q-D benefits and discuss shared growth policies' in July to communicate the benefits jointly generated with suppliers and LS ELECTRIC's business directions and procurement policies. In January of 2020, a total of 125 suppliers gathered to exchange New Year's greetings and reaffirm their commitment to innovation for the year. In July 2020, we engaged in communication with 105 suppliers by introducing our shared growth support programs and our integrated substances data management system and sharing best practices on technology protection and innovation.



New Year's greetings



Benefits sharing

### Supplier Innovation Contest

The Innovation Contest that had been hosted at the end of each year went online in 2020 with 34 suppliers attending. Awards were granted to three suppliers in recognition for their best practices to encourage their innovation performance, and this served to promote good-faith competition and disseminate an innovation-driven mindset among suppliers. The following innovation discussions allowed senior management and working-level staff to freely engage in discussions on ways to facilitate innovation activities. We will continue to host the Innovation Contest to share and encourage innovation activities undertaken for the year.

### Establishment and Operation of the Joint Workers' Welfare Fund for Suppliers

The 'LS ELECTRIC Shared Growth Joint Workers' Welfare Fund' was created as a corporation to promote the welfare of supplier employees, and a total of KRW 8 billion has been raised and is operated. The funds are used to improve welfare services for member employees (tuition support for their children, health check-ups and funeral support), and benefits worth KRW 380 million were provided to 2,230 employees at 18 companies in 2020. A briefing session was hosted for all member companies to ensure the stable operation of the corporation, and we will expand its operation to benefit even more supplier employees in the upcoming years.

### Shared Growth Innovation Meeting

The Shared Growth Innovation Meeting is hosted monthly to support suppliers in ensuring their parts quality. This meeting is attended by major suppliers to review monthly quality status and share improvements made and subcontracting issues, serving as a regular communication channel between LS ELECTRIC and its suppliers. The meeting was held through virtual means in 2020 to share our procurement policies, shared growth policies, worksite-specific quality policies, raw material supply/demand and market conditions, product environment regulations, and company-wide common issues (FTA, conflict minerals, etc.). We will continue to operate the Innovation Meeting to promote the exchange of opinions between LS ELECTRIC and suppliers.

### Establishment of the LS ELECTRIC Supplier Code of Conduct

In line with Corporate Social Responsibility (CSR) gaining increasing importance, we have stipulated and operated the Supplier Code of Conduct since 2019 with an aim to share and practice our management philosophy from the CSR perspective. The code was prepared with reference to OECD and RBA guidelines and feedback from relevant departments with a focus on social issues, and consists of respect for employees' human rights, workplace safety, green management, compliance with business ethics, shared growth, and CSR. In 2020, the Supplier Code of Conduct was added in concluding the Basic Trade Contract with 327 suppliers. The code was also shared as part of such communication activities as New Year's Greetings and Shared Growth Innovation Meetings with suppliers to widely embed the code into the fabric of our corporate DNA.

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Employee

LS ELECTRIC supports employees to improve their quality of life through work & life balance. To this end, a wide array of programs are under operation, including Vacation Weeks, family-friendly programs, events that invite employee families, and in-house daycare centers, and we are relentlessly committed to recruiting and nurturing outstanding individuals. In 2021, we will secure core capabilities to take the initiative of Digital Transformation and strengthen our global competency through the development of global talent.



New recruits in 2020  
(based on permanent positions)

99 persons



Training expenses per employee

KRW 1.4 million



Ratio of unionized employees

29.3%



[Goal 3, 5, 8]

**Ensure the healthy life of employees, and provide equal opportunities for decent work regardless of gender**

**3.8** Achieve universal health coverage, including financial risk protection and access to quality essential health-care services

**5.5** Ensure women's participation and equal opportunities for leadership

**8.5** Achieve full and productive employment and decent work for all women and men and equal pay for work of equal value

KEY PERFORMANCE & TARGETS



- Recruit and nurture key talent to strengthen global competitiveness
- Define and implement global HR strategies to develop global business
- Establish a new corporate culture (agile culture, smart working)



- Recruited key global talent
- Established and operated a performance-driven HR system
- Operated a macro management system based on the CIC organization



- Improve the HR system and framework to facilitate digital transformation
- Secure and internalize global competency
- Develop and operate the CTI (Culture Transformation Index) to revolutionize the corporate culture

COMMITMENT

**Kyu-Tae Choi** | Leader of GHR Team, HR/Management Support Group

LS ELECTRIC recruits and nurtures talented individuals in accordance with its talent management philosophy that the source of its core competitive edge lies in outstanding talent. In particular, we provide an optimal work environment for all employees to better engage in their work, and advance family-friendly management by promoting work & life balance. We will continue with a broad array of activities to create a healthy workplace where the company and individuals grow hand-in-hand.

# Employee

## Work & Life Balance

LS ELECTRIC operates Vacation Weeks, family-friendly programs, in-house daycare centers and events that invite employee families to support employees to achieve the right work & life balance and enjoy a better quality of life in so doing. We have remained certified under the Family-friendly Business Program since 2014 to promote the creation of a family-friendly workplace.

### Vacation Weeks

Vacation Weeks allows our employees to take longer breaks within the limit of their paid leave and individual annual leave. Under this program, our employee can take Vacation Weeks for three to five days in the first and second half in addition to their summer vacations to recharge their energy and improve their work efficiency.

### Smart Working, Happy Life!

Our Smart Working, Happy Life! Event aims to celebrate employees who were promoted to manager positions by inviting their families and executive member families. This serves to request newly-promoted managers to sincerely fulfill their role as a manager and extend gratitude to their families for their support and share our corporate vision with them.

### Daycare Centers

LS ELECTRIC operates workplace daycare centers to help employees work while raising their family. The LS Daycare Center opened in Anyang in March, 2015 for employees working at the Head Office and the Anyang R&D Campus, and our Cheongju plant opened a jointly-operated daycare center as a member of the consortium in the Cheongju Industrial Complex. These daycare facilities are operated by professional institutions to ensure that employees' children are well taken care of in a secure environment.

## Family-friendly Programs

As we believe that 'happy families mean happy employees', we provide a wide array of family-friendly programs as below for the family of our employees. In 2020, these programs mainly went online amid the COVID-19 pandemic, and will be further facilitated in 2021.

**Family Happiness Camp |** Parents and children are given an opportunity to think about their happiness as a family to better communicate with one another. Family members learn how to pay compliments from each other's perspective and how to express themselves, and think about what they can do for family happiness.

**Happy Time with Daddy |** This serves to build closer bonds between dads and their children through divers and fun activities, including sports day, treasure hunt, and cooking class.

**Dream Camp |** Children of LS ELECTRIC employees are encouraged to find their dream and vision and learn how to make their dream come true on their own. Dream Camp helps these children think about their future career and vision and reflect on their habits and learning methods to achieve their dream.

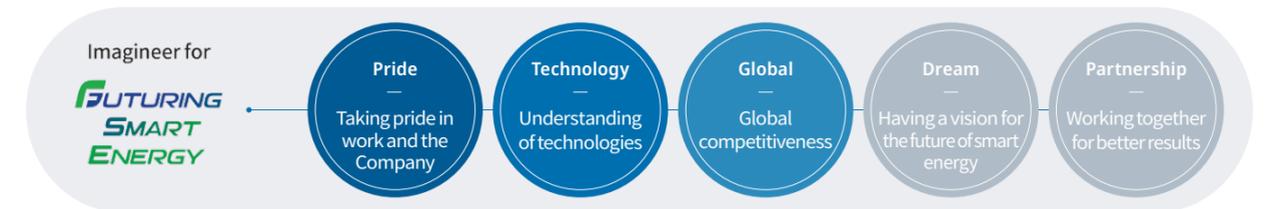
**Go Camp |** Every July, Go Camp is hosted for employees' children who attend elementary and middle schools to support their emotional stability and logical reasoning during their formative period. In addition to playing go, diverse activities are provided to help these children develop strategic thinking and teamwork skills.

**Fun Sports Day on Children's Day |** Fun Sports Day is hosted for employees' children and families on Children's Day to encourage participating children to recognize the importance of family, develop a sense of pride in the company their parents work for, and enjoy a productive and pleasant time together.

## Recruiting and Nurturing Outstanding Talent

### Ideal LS ELECTRIC Employee

LS ELECTRIC's ideal employee is defined as an 'Imagineer for Futuring Smart Energy'. 'Imagineer' is the combination of 'Imagine' and 'Engineer', and describes ideal LS ELECTRIC employees who take pride in their work and the Company (Pride) and have a vision for the future of smart energy (Dream) based on their understanding of technologies (Technology) and global competitiveness (Global) to work together for better results (Partnership). Our Imagineers are committed to attaining our mission and vision and grow into global talent that proactively respond to the shifting business paradigm.



### Our Global Workforce

We have set our course of action to become a 'Global Company! Digital Enterprise!', and are exploring a variety of opportunities to expand our global business presence. As of the end of 2020, we employed more than 1,000 persons across one overseas holding company, nine production and sales corporations, and 14 overseas branches in Europe, China Vietnam, Japan and Turkey. To strengthen the competitiveness of our human resources and tap into the wider global market and increase sales in so doing, the Global Talent Map was developed to identify and nurture necessary talent over the mid/long-term, and global recruitment is being gradually expanded across North America, China, Europe and Vietnam to recruit exceptional global talent.

### Diverse Recruitment Channels and Processes

In addition to regular public recruitment in the second half of each year (non-career track) and quarterly on-demand recruitment (career track), we launch global recruitment campaigns for Korean students at overseas universities in North America and China and foreign nationals with

exceptional technology qualifications (R&D). On-campus recruitment, corporate-funded scholarships, search firms and other diverse channels are also leveraged to hire outstanding talent and swiftly place them in working-level assignments. Employment-aligned internship opportunities are also provided to help participating interns learn our working-level business practices and assign them to proper positions later on.

To select brilliant talent, we put first their interest in and commitment to their desired job in the recruitment process rather than pre-determined qualifications, and assess their basic competence and growth potential through paper screening. The ratio of objective assessment indicators (AI competence test, English proficiency test, presentation interview, and software coding test) was raised to prevent any unreasonable discrimination from occurring while the interview process was standardized and interviewers were trained to ensure consistency in the assessment process. Our recruitment advertisement specifies that we offer preference to people with disabilities and individuals of national merit, operating our recruitment policy in a way that cares for vulnerable members of our society.



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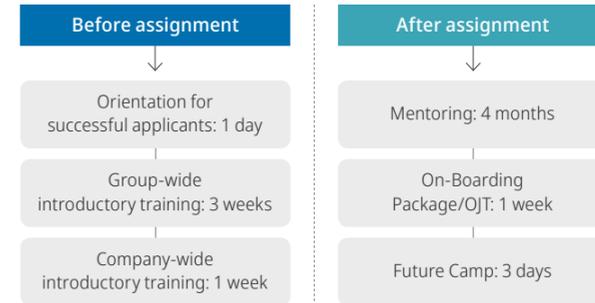
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# Employee

## Onboarding Program for New Recruits

A variety of programs are under operation to assist new recruits in adapting to their new life at LS ELECTRIC. On the day of announcing successful applicants, they receive a congratulatory letter and a basket of flowers, and an orientation session with other new recruits and HR managers to develop a sense of belonging and community. Once they join the Company, group/company-wide introductory training is offered to help develop knowledge, skills and attitudes required in performing their work, and mentoring and OJT programs are provided to improve their common/job-specific competence. When the first one year passes, they are given an opportunity through Future Camp to look back on their past one year and envision their future at the Company to think about their individual and organizational vision.



\*LS Group training curriculum

Position	Global	Position Level	Organizational Development	Job	Customer/Supplier
Executive	Foreign language	New executive	Executive seminar	R&D SW (13 programs)	PowerSolutions (8 programs)
Senior Manager	Global Lounge Program GBT In Company English Global communication Strategic language (foreign language speaking) Understanding different cultures (US/China/Middle East/Vietnam) Overseas dispatch UT-Austin China Biz. Academy/On-boarding for returning expatriates External language learning support based on goal consensus	Leadership School for team leaders New team leader New team leader WS	Introductory program for career employees (LS ELECTRIC/LS Group) / Plant on-boarding LCP(Leadership Challenge Prg.) LS MBA, LS T-MBA Coaching Execution improvement at the team level Intervention - Assimilation W/S, Pl, Harmony Day	HW (4 programs) Design (12 programs) CAE (17 programs) Common (5 programs)	Automation PLC (12 programs) HMI (2 programs) Drive (2 programs)
Manager		Solution Leader Program Competency Lv. 4 Performance Lv. 3 Competency Lv. 3 Performance Lv. 2 Competency Lv. 2 Performance Lv. 1 Competency Lv. 1	Innovation capacity improvement for office workers Mentoring	Quality (8 programs) DT (4 programs) Production (4 programs) Purchase (2 programs) Support (8 programs) Sales (7 programs)	Supplier (8 programs)
Associate Manager	Daily News Briefing Intensive (English/Chinese)	LS Future Camp Introductory program for non-career employees (LS ELECTRIC) Introductory program for non-career employees (LS Group)			
Production Supervisor / Production Worker		Capacity-building for production supervisors Capacity-building for production workers	Innovation capacity improvement for production workers	Common (9 programs)	

## Development of Human Resources

LS ELECTRIC operates wide-ranging training programs, from position/job-specific programs to global and organizational development programs to help employees improve their job competence. In particular, a global lounge was created at the Head Office and the Cheongju plant for global capacity-building to assist employees in embracing different cultures as well as developing language skills. Not only do we operate outplacement and reemployment programs for retirees but also provide training programs to support them in designing their after-retirement life from the employees' life cycle perspective. Furthermore, customers and students in the power solutions and automation markets are supported with in-depth theory and product learning for the dual purpose of customer assistance and social contribution. We also continue to operate executive courses to help our CEO and directors efficiently fulfill their role.

## Fair Appraisal and Compensation

LS ELECTRIC firmly believes that fair performance appraisal and compensation forms the cornerstone for its sustainable development as a company, and consistently endeavors to this end. Our performance appraisal system is operated in such a way that targets are set at the group and division level to attain company-wide management goals, and they are translated into team/individual-level targets. In conducting performance assessments, the rate of allocating individual assessment grades is adjusted in alignment with their organizational assessment grades to synchronize organizational and individual performance, and assessment outcomes are used in making bonus, salary, promotion and career development decisions.

## Operational Process



## Respect for Human Rights and Protection of Basic Rights

At LS ELECTRIC, institutional mechanisms are arranged to ensure that our employees do not suffer any unjustified discrimination on the grounds of gender, race, religion or hometown. We also endeavor to provide a work environment that motivates employees to fully engage in their work and unleash their potential. We fundamentally prohibit child labor and forced labor and thoroughly comply with provisions ratified by domestic laws and the International Labor Organization while opening and providing human rights training courses to improve and develop relevant systems to respect human rights. To offer better working conditions and respect the labor union's right to collective bargaining, we sincerely implement annual wage and collective agreement negotiations with the labor union and guarantee the freedom of our employees to engage in labor union activities without suffering any disadvantage for their involvement in such activities.

## Win-Win Labor-Management Partnership

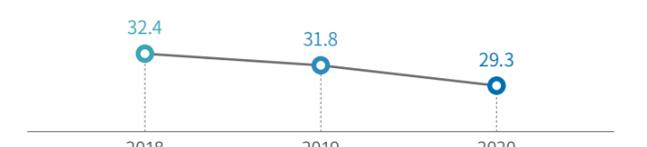
LS ELECTRIC duly recognizes the labor union as its management partner, and is committed to building win-win labor-management partnerships. A working-level labor-management task force team is under operation year-round to swiftly resolve major pending issues, and the Labor-Management Council meets at the worksite or company-wide level on a quarterly basis to discuss not only labor conditions and welfare benefits but also management issues such as workforce arrangement and relocation and the Company's growth strategy to create a reasonable labor-management culture. In particular, senior management directly presents its performance of field management to labor union executives to promote the openness and transparency of management while sharing information on business conditions and challenges to maintain mutually-cooperative relationships. Aside from the labor union, office worker representative bodies are operated to promote communication and feedback across different worksites and job levels and to continuously improve the work environment and treatment for employees. Currently, 29.3% of total employees are unionized as of the end of 2020 in accordance with the collective agreement and labor rules.

(unit: No. of persons)

Category	Job Category	2018	2019	2020
Non-union member	Office worker	2,043	2,060	2,085
	Production advisor/others	78	80	95
Union member	Production worker	1,018	999	905

## Union Membership Rate

(unit: %)



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It is with the strong sense of solidarity that LS ELECTRIC extends its helping hand in a sincere and sustained manner to resolve social conflicts and issues that plague the vulnerable. Guided by the three principles of Partnership, Initiative and Sustainability, we launch tailor-made CSR activities in Anyang, Cheongju, Cheonan, and Busan where our plants are operated in addition to making donations to low income groups. Since 2019, we have also launched 'Let's Start Together with LS ELECTRIC' as a sponsorship program for children.



Employees who participated in CSR activities (including redundancies)

4,856 persons

Annual donations made

KRW 691 million

Beneficiaries of CSR activities

724 persons



**[Goal 1, 4]**

**End all forms of poverty, and provide and increase access to quality education for all**

**1.4**

Ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services

**4.5**

Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable

KEY PERFORMANCE & TARGETS



- Create global CSR programs that befit our status as a global citizen
- Ensure the continuity of locally-customized CSR programs
- Internalize awareness of social responsibility through increased employee engagement



- Operated an emergency support program tailor-made for the COVID-19 pandemic
- Improved employees' awareness and increased resources for contactless CSR activities
- Strengthened three major CSR programs to support children and seniors and protect the environment



- Reinforce social solidarity and expand the fulfillment of social responsibility in areas where our worksites are located and expand
- Develop contactless CSR programs in preparation for the sustained needs for contact-free activities in society
- Create a CSR council with local communities (governments, civic groups, etc.)

COMMITMENT

**Hyecheol** | Head of Anyang City's senior welfare center

Each year, we see more seniors living alone than you may expect who are totally unprepared for the cold wave of the winter season. In the wake of COVID-19, winter in 2020 was specifically harsh from the psychological viewpoint as well. LS ELECTRIC's donation of winter clothes for these elderly people meant more than simply receiving something to keep oneself warm during the winter season; it truly served to spread the warmth of sharing so that seniors living alone could stay grateful and warm all throughout the winter.

## Local Community

### CSR Activity

#### CSR Philosophy

LS ELECTRIC's corporate social responsibility (CSR) activities are aligned with those of other LS Group subsidiaries to ensure consistency. LS Group's management philosophy 'LSpartnership' means that we create greater value moving together as a trusted partner, and embodies the identity of our CSR initiatives.

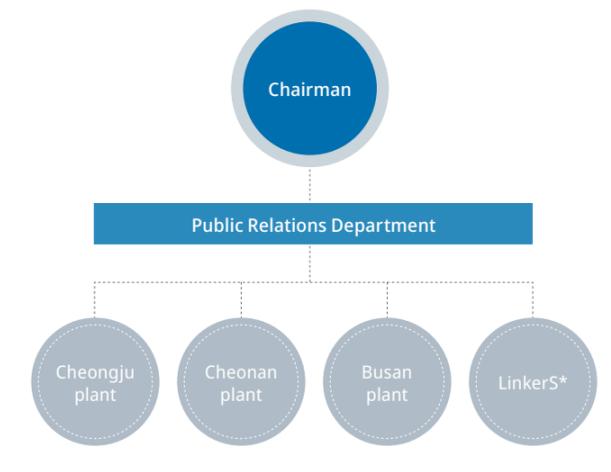
In line with this philosophy, LS Group aims to become a 'reliable partner to support the underprivileged and future generation', and focuses on generating greater value through sharing and cooperation between volunteers and beneficiaries, undertaking CSR programs in Korea and abroad.



#### CSR Implementation System

LS ELECTRIC is operating independent programs newly developed from the long-term perspective to fulfill its responsibility as a global corporate citizen in addition to existing group-wide programs, creating greater synergy in so doing.

The Public Relations Team supervises our company-wide CSR operations, and respective plants in Cheongju, Cheonan, Busan and other regions implement tailor-made programs with the HR Support (Support Innovation) Team and LinkerS (representative body for office workers) playing a central role.



\* LinkerS: LinkerS was launched as LS ELECTRIC's representative body for office workers to establish an open-minded culture and lead CSR initiatives, and currently has 17 active members.

### LS Group's CSR Activities

**Donation to help neighbors in need** | In February 2020, LS ELECTRIC and other major subsidiaries of LS Group donated KRW 300 million to the Community Chest of Korea to help curb the spread of COVID-19 and cope with this global pandemic. The donation went to provide protective suits and medical supplies for healthcare professionals in Daegu and North Gyeongsang who were specifically hit hard in the wake of COVID-19 and to support vulnerable groups. LS Group wholeheartedly wishes that we could return to normalcy as soon as possible for those who are directly /indirectly affected by COVID-19.

**Support for children in local communities** | To encourage children who face limitations in outdoor and group activities due to the social distancing rules adopted following the outbreak of COVID-19, LS Group provided more than 3,000 children in Anyang and Gunpo with LS@HOME Boxes that consisted of science play kits, face masks and food items. Notably, the science play kits and their instruction manuals provided accessible and fun experience to kids in learning the scientific principles behind a photovoltaic-powered plane, a car that autonomously recognizes obstacles, and the merry-go-round that moves according to temperature variations. In tandem with this, online mentoring and other events were hosted while face coverings, hand sanitizers and other hygiene items were offered along with an assortment of food items.

**LS Dream Science Class** | Since 2013, LS Group has operated LS Dream Science Class in conjunction with the Child Fund and the National Academy of Engineering of Korea to elementary schools located near its worksites. This program benefits fifth and sixth graders during vacation through science experiment/practice lessons and weekly culture and arts experience programs led by undergraduates with science and engineering majors chosen through open competition serving as instructors and mentors following the completion of relevant teacher training. In Cheongju, Anyang, and Busan, LS ELECTRIC employees volunteer as daily instructors for science experiment/practice classes and help children tour our worksites as part of LS Dream Science Class.

**LS Overseas Volunteer Group/LS Dream School** | The LS overseas volunteer group consists of 20 undergraduates chosen through open competition as well as employees from LS Group subsidiaries and experts from NGOs cohosting the initiative. Volunteers receive nearly two-month professional training and make preparations to reach out to children in developing countries with sincere affection and caring attitudes. The LS overseas volunteer group has been engaged in overseas volunteering every two years since 2007 to improve the learning environment and provide varying cultural and emotional learning programs for children in developing nations. Meanwhile, the LS Dream School project was launched in 2013 in alignment with the volunteer group to choose two schools each year suffering a shortage of classrooms and aging facilities and to build new buildings for them. This program has resulted in the opening of 12 new schools to date.

**LS Dream Orchestra** | Modeled after El Sistema, a Venezuelan music learning program designed for underprivileged children, LS Dream Orchestra was launched in June 2012 to provide consistent classical orchestra education to children. This program is recognized for its contribution to promoting the holistic and emotional development of children and empowering them to lead a more flourishing life. LS ELECTRIC vows to do its utmost to help children learn the spirit of teamwork and challenge and become a responsible member of society while developing their passion for music and discovering their talent through orchestra activities.

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### LS ELECTRIC's CSR Activities

With the belief that contributing to the local community forms the cornerstone of fulfillment of corporate social responsibility, LS ELECTRIC is engaged in a broad array of activities in the local communities where it is based. The 'Let's Make Green with LS ELECTRIC' campaign offers daily living support to local seniors and helps preserve the urban ecosystem and resolve environmental issues while the 'Let's Start Together with LS ELECTRIC' campaign supports local children and students to move forward with a healthy mind and body in a safe environment as part of our consistent endeavors to implement varied sponsorship programs.

**Emergency Support for Vulnerable Groups amid COVID-19** | Our employees voluntarily raised funds valued at nearly KRW 42 million to donate IT devices for learning in conjunction with Good Neighbors to students from low-income families who are challenged in engaging in online remote learning amid COVID-19. As the spread of the pandemic made it inevitable for elementary, middle and high schools to open a new semester through virtual means, our donation aimed to assist students from financially-strapped households who do not have personal computers or other well-functioning devices at their disposal and thus find it difficult to attend online classes in better accessing educational opportunities.

**Child sponsorship program** | Our 'Let's Start Together with LS ELECTRIC' was designed to support children. In partnership with Good Neighbors, we launched the 'LS ELECTRIC Learning Kit Donation' program to donate bags and school supplies worth more than KRW 20 million to nearly 150 elementary school students from low income families in Anyang.

**Snack kit donation for people with disabilities** | We provided snack kits to nearly 300 people with disabilities who have mobility difficulties in cooperation with the Suri Welfare Center for people with disabilities

in Anyang City. By donating these kits that contained bread, cookies and light refreshments along with hygiene items to these people who are even more challenged in outdoor access amid the pandemic, we extended the warmth of sharing and care.

**Daily support for seniors** | Since 2014, we have donated winter clothes to low-income seniors living alone in conjunction with the Anyang Senior Welfare Service Center and other local social organizations. Every year, our volunteers visit their home and practice the spirit of warmth, spending quality time together.

**Tailor-made seasonal support** | Since 2014, we have donated winter clothes, meal boxes for the Korean Thanksgiving, and cooling devices to low-income and underprivileged groups in local communities. On New Year's Day, we invite seniors living alone and people with disabilities and serve them rice cake soup in celebration, and we have supported people with disabilities living at home with outings and cultural experience programs since 2017 starting with Anyang where we are headquartered.

**Environmental clean-up program** | 'Let's Make Green with LS ELECTRIC' is operated as a CSR campaign that aims to preserve the urban ecosystem and resolve environmental issues. Volunteers including our employees, the Environmental Action Association, and local residents visit Anyang Stream in Gyeonggi Province and Musim Stream in North Chungcheong Province to throw Effective Microorganism (EM) soil balls into the water, pick up waste, and eliminate invasive plants disturbing the ecosystem to make these streams cleaner. In addition, regular environmental improvement activities are undertaken across streams and forests in the vicinity of our respective worksites.



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## Financial Statements (on a consolidated basis)

### Summarized Statement of Financial Position

(unit: KRW million)

Item	2018	2019	2020
<b>Assets</b>	<b>2,405,836</b>	<b>2,538,144</b>	<b>2,540,396</b>
Current assets	1,536,084	1,666,900	1,649,805
Non-current assets	869,751	871,244	890,592
<b>Liabilities</b>	<b>1,108,364</b>	<b>1,175,462</b>	<b>1,126,926</b>
Current liabilities	700,173	753,779	644,246
Non-current liabilities	408,191	421,683	482,680
<b>Equity</b>	<b>1,297,471</b>	<b>1,362,683</b>	<b>1,413,470</b>
Total equity attributable to stockholders of the Company	1,294,510	1,360,591	1,411,499
Non-controlling interests	2,962	2,091	1,971
<b>Total liabilities and equity</b>	<b>2,405,836</b>	<b>2,538,144</b>	<b>2,540,396</b>

### Summarized Statement of Comprehensive Income

(unit: KRW million)

Item	2018	2019	2020
Sales	2,484,978	2,346,849	2,402,673
Operating income	205,048	168,549	133,714
Income from continuing operations before tax	177,790	146,957	127,845
Net income	132,235	103,043	85,486
Total comprehensive income for the current term	128,026	100,401	86,671

### Summarized Statement of Cash Flows

(unit: KRW million)

Item	2018	2019	2020
Cash flows from operating activities	204,655	216,080	288,901
Cash flows from investing activities	67,346	(78,623)	(84,498)
Cash flows from financing activities	(80,570)	(57,835)	(55,341)
Change in cash and cash equivalents	191,431	79,621	149,063
Cash and cash equivalents at the beginning of the year	261,507	455,629	534,507
Effects of exchange rate changes on cash and cash equivalents	2,692	(743)	(335)
Cash and cash equivalents at the end of the year	455,629	534,507	683,235

### Balance in Government Subsidies

(unit: KRW million)

Item	2018	2019	2020
Machinery	205	184	172
Office equipment	560	510	370
Tools and equipment	-	-	12
Buildings	30	21	46
Development expenses	1,548	291	173

## Environment and Safety

### Environment and Safety Indicators

Item		Unit	2018	2019	2020	Note			
Investment in Environment and Safety	Green product development	KRW million	5,879	8,519	17,232	Development of GIS (170kV 50kA 2000A) that uses g <sup>3</sup> gas and three other cases			
	Process improvement	KRW million	271	14,044	15,704				
	Investment in environmental and safety facilities	KRW million	405	411	842				
	Maintenance of environmental and safety facilities	KRW million	274	875	629				
Environment	Air	Dust	Amount discharged	kg	677	1,033	1,554	Environmental liability insurance and Green Company data	
		NOx	Amount discharged	kg	3,901	2,508	2,480	Environmental liability insurance and Green Company data	
		SOx	Amount discharged	kg	-	-	-	Environmental liability insurance and Green Company data	
		Intensity		kg/KRW million	0.23	0.19	0.21		
	Water quality	Water	Consumption		km <sup>3</sup>	175	165	173	
			Intensity		km <sup>3</sup> /KRW million	0.90	0.89	0.92	
		Reuse		km <sup>3</sup>	-	-	-		
	Effluents discharged		m <sup>3</sup>	22	28	152	Increases in effluent discharge at Cheongju 2 Plant (increases in production line overhaul)		
	Waste	Amount discharged	General		ton	4,250	4,386	3,827	Use of the Allbaro system
			Designated		ton	106	78	123	Use of the Allbaro system
Intensity			ton/KRW 100 million	0.22	0.24	0.21			
Recycling rates			%	87	86	82	Including metal pieces and waste paper except for waste from the workplace		
Hazardous chemicals	Consumption of hazardous chemicals	kg	1.6	1.5	1.5				
Green purchases		KRW million	351	374	433				
Energy /GHG	Power	Consumption		MWh	70,317	75,677	80,604		
		Intensity		toe	16,173	17,406	18,539		
	Fuel (LNG)	Consumption		km <sup>3</sup>	2,733	2,424	2,075		
		Intensity		toe	2,850	2,528	2,164		
	GHG	Amount discharged	Fuel (LNG)		tCO <sub>2</sub> eq	6,576	5,914	5,288	Change in aggregation criteria (Scope – energy source)
			Electricity		tCO <sub>2</sub> eq	32,785	35,376	37,582	
		Subtotal		tCO <sub>2</sub> eq	39,361	41,290	42,870		
Intensity		tCO <sub>2</sub> eq/KRW 100 million	2.01	2.24	2.27				
Others		tCO <sub>2</sub> eq	808,555	563,472	534,098				
Safety	Occupational injury rate		%	0.03	0.01	0.06			
	Lost workdays		day	487	207	894			
	Occupational	Training hours (cumulative)		hour	91,325	89,438	71,460		
		Trainees (cumulative)		No. of persons	19,458	18,960	13,272		
Health	Expenses	Employees diagnosed with specific conditions		KRW 100 million	718	729	691		
		Check-ups		No. of persons	985	912	1,055		
	Support for medical expenses		KRW million	881	1,027	1,113			
Support for medications		KRW million	39	37	101				
Raw materials	Steel		ton	7,908	8,203	8,162			
	Non-ferrous metal		ton	3,512	3,324	2,841			
	Resin		ton	626	532	352			
<b>Production amount</b>		<b>KRW 100 million</b>	<b>19,544</b>	<b>18,443</b>	<b>18,858</b>				



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## Employee

## HR Indicators (as of the end of 2020)

	Sector	Unit	2018	2019	2020	Note
Total employees	Executives	No. of persons	18	21	21	
	Permanent employees	No. of persons	3,128	3,093	3,085	
	Temporary employees	No. of persons	225	233	246	Including responsible employees and temporary employees
	Total	No. of persons	3,371	3,347	3,352	
Employees by region	Anyang	No. of persons	1,011	953	883	
	Seoul	No. of persons	-	123	252	LS Yongsan Tower
	Cheongju	No. of persons	1,511	1,449	1,413	
	Cheonan	No. of persons	488	473	457	
	Busan	No. of persons	186	183	183	
	Others	No. of persons	175	166	164	
	Total	No. of persons	3,371	3,347	3,352	
Employees by age group (permanent employees)	20's	No. of persons	210	180	185	
	30's	No. of persons	997	967	926	
	40's	No. of persons	1,150	1,109	1,065	
	50 and older	No. of persons	771	837	909	
	Total	No. of persons	3,128	3,093	3,085	
New recruits (permanent)	No. of persons	65	87	99		
Turnover (permanent)	%	3.5	3.7	3.2	Including employees who resigned due to retirement age	
Female employees (permanent)	No. of persons	420	304	312		
Female executives (permanent + temporary)	%	12.5	10.7	11.1		
Female managers	No. of persons	43	59	85	In manager and higher positions	
Ratio of female managers	%	3.4	4.1	7.2	Against total managers	
Employees with disabilities	No. of persons	50	57	44	Based on permanent positions	
Ratio of employees with disabilities	%	1.6	1.8	1.4		
Foreign national employees (permanent + temporary)	No. of persons	12	11	10	Foreign national employees working in Korea	
Training expenses	KRW 1,000/person	2,017	1,974	1,355		
Training hours	PD/person	7	8	7	1PD = 8 hours of offline training and 1 month of online training	
Welfare and benefit expenses	KRW million/person	16	17	17	Based on permanent positions	
Employees who took childbirth leave	No. of persons	10	15	11		
Employees who took parental leave	No. of persons	19	14	32	Based on employees who returned to work after parental leave	
Employees who returned to work after parental leave	%	100	100	100		

## Operational Status of the Retirement Pension Fund

\* Funds under management are based on the year-end balance of pension fund operators.

	Sector	Unit	2018	2019	2020	Note
Defined Benefit (DB)	Funds under management*	KRW million	180,120	198,501	217,113	
	Subscribers	No. of persons	3,062	2,831	2,852	
Defined Contribution (DC)	Funds under management*	KRW million	-	-	-	
	Subscribers	No. of persons	239	346	387	

## Shared Growth and Social Contribution

## Shared Growth Indicators

	Indicator	Unit	2018	2019	2020	Note
Ethics index of suppliers		Point	4.23	4.25	4.37	
Ethics index of distributors		Point	4.06	4.04	4.21	
Subcontract training for suppliers		No. of occasions	-	1	1	
Signing of the Shared Growth Agreement	No. of sessions offered	No. of cases	351	258	329	
	Funds raised	KRW 100 million	310	310	310	
Financial support to suppliers	Support amount	KRW 100 million	114	118	110	
	Suppliers who received support	No. of companies	63	62	60	
Shared-growth payment support for suppliers	Total shared-growth payments made	KRW 100 million	9,291	7,999	9,231	
Training support for suppliers	No. of participants	No. of persons	246	293	-	Offline training not provided in 2020 due to COVID-19
Technology protection for suppliers	Beneficiary suppliers	No. of companies	-	42	-	Provision of patent license free-of-charge
Technology development support for suppliers	No. of cases	No. of cases	12	34	22	Certification of Original Documents on Trade Secrets
	New product development projects	No. of cases	-	-	-	
Innovation capacity support for the ACE Club	Technology cooperation projects	No. of cases	-	-	30	
		KRW 100 million	-	-	14	
ACE Club (Supplier Association)	Members	No. of companies	17	17	17	
Innovation capacity support for the ACE Club	Suppliers who received support	No. of companies	17	17	17	
	Employees who received support	No. of persons	17	17	17	
Benefit sharing with suppliers	Benefit sharing with suppliers Participating suppliers	No. of companies	248	238	238	
Communication with suppliers		No. of occasions	3	3	-	

## Purchase by Region

	Indicator	Unit	2018	2019	2020	Note
Asia (excluding the Middle East)		%	68	59	65	
Europe		%	25	33	20	
Americas		%	5	5	13	
Middle East		%	2	3	2	
Others (Oceania and Africa)		%	-	-	-	
<b>Total</b>		<b>%</b>	<b>100</b>	<b>100</b>	<b>100</b>	

## Social Contribution

	Indicator	Unit	2018	2019	2020	Note
Donations made		KRW million	5,934	5,638	691	Donations recordable
Social contribution expenses		KRW million	53	56	125	
Social contribution activities		No. of cases	122	97	68	
Participants in social contribution activities		No. of persons	1,677	6,076	4,856	Based on volunteer activities, including redundancies
Beneficiaries of CSR activities		No. of persons	-	-	724	Direct beneficiaries (complied since 2020)

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## Independent Assurance Statement

### To readers of 2020-2021 LS ELECTRIC Sustainability Report

#### Introduction

Korea Management Registrar (KMR) was commissioned by LS ELECTRIC to conduct an independent assurance of its 2020-2021 LS ELECTRIC Sustainability Report (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of LS ELECTRIC. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with LS ELECTRIC and issue an assurance statement.

#### Scope and Standards

LS ELECTRIC described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR's assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team. The team checked whether the Report has been prepared in accordance with the 'Core Option' of GRI Standards which covers the followings.

Confirmation that the Report was prepared in accordance with the Core Options of the GRI standards was included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process;

- GRI Sustainability Reporting Standards
- Universal standards
- Topic specific standards
  - Management approach of Topic Specific Standards- GRI 205: Anti-Corruption
  - GRI 205: Anti-Corruption
  - GRI 301: Materials
  - GRI 302: Energy
  - GRI 401: Employment
  - GRI 403: Occupational Health and Safety
  - GRI 413: Local Communities

This Report excludes data and information of joint corporate, contractor etc. which is outside of the organization, i.e. LS ELECTRIC, among report boundaries.

#### KMR's Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report's performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service's DART and public databases.

#### Limitations and Recommendations

KMR's assurance engagement is based on the assumption that the data and information provided by LS ELECTRIC to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

#### Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with LS ELECTRIC on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, it is our opinion that the Report applied the Core Option of the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

#### Inclusivity

LS ELECTRIC has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

#### Materiality

LS ELECTRIC has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

#### Responsiveness

LS ELECTRIC prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of LS ELECTRIC's actions.

#### Impact

LS ELECTRIC identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

#### Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

#### Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021:2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with LS ELECTRIC and did not provide any services to LS ELECTRIC that could compromise the independence of our work.

June 2021 Seoul, Korea

CEO *E. J. Hwang*



## GRI Standards Index

### GRI Standards Index

Topic	Title	Page	Comments	
Organizational profile	102-1	Name of the organization	8	
	102-2	Activities, brands, products, and services	20-27	
	102-3	Location of headquarters	8, 19	
	102-4	Location of operations	18-19	
	102-5	Ownership and legal form	14-15	
	102-6	Markets served	18-19	
	102-7	Scale of the organization	8-9	
	102-8	Information on employees and other workers	8, 84	
	102-9	Supply chain	16-19	
	102-10	Significant changes to the organization and its supply chain	8, 16-19	
	102-11	Precautionary Principle or approach	39, 41	
	102-12	External initiatives	15, 31, 91	
	102-13	Membership of associations	91	
Strategy	102-14	Statement from senior decision-maker	4	
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	37-39	
Governance	102-18	Governance structure	14-15	
Stakeholder engagement	102-40	List of stakeholder groups	16-17	
	102-41	Collective bargaining agreements	75	
	102-42	Identifying and selecting stakeholders	16-17	
	102-43	Approach to stakeholder engagement	32-33	
	102-44	Key topics and concerns raised	18-19	
Reporting practice	102-45	Entities included in the consolidated financial statements	18-19	
	102-46	Defining report content and topic Boundaries	32-33	
	102-47	List of material topics	-	No restatements made
	102-48	Restatements of information	-	No changes
	102-49	Changes in reporting	-	No changes
	102-50	Reporting period	About This Report	
	102-51	Date of most recent report	About This Report	
	102-52	Reporting cycle	About This Report	
	102-53	Contact point for questions regarding the report	About This Report	
	102-54	Claims of reporting in accordance with the GRI Standards	About This Report	
	102-55	GRI content index	88-90	
	102-56	External assurance	86-87	

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Topic	Title	Page	Comments	
Management Approach	103-1	Explanation of the material topic and its Boundary		
	103-2	The management approach and its components	30-31	
	103-3	Evaluation of the management approach		
<b>Economic Standards (GRI 200)</b>				
Economic Performance	201-1	Direct economic value generated and distributed	14-17	
	201-3	Defined benefit plan obligations and other retirement plans	84	
	201-4	Financial assistance received from government	82	
Procurement Practices	204-1	Proportion of spending on local suppliers	16-17, 85	
Anti-corruption	205-1	Operations assessed for risks related to corruption	36-39	
	205-2	Communication and training about anti-corruption policies and procedures	36-39	
	205-3	Confirmed incidents of corruption and actions taken	-	No cases of corruption recorded during the reporting period
<b>Environmental Standards (GRI 300)</b>				
Materials	301-1	Materials used by weight or volume	58-60, 83	
	301-2	Recycled input materials used	-	No recycled input materials used
Energy	302-3	Energy intensity	58, 83	
	302-4	Reduction of energy consumption	58-60, 83	
	302-5	Reductions in energy requirements of products and services		
Water and Effluents	303-2	Management of water discharge-related impacts	59	
	303-3	Water withdrawal		Water supply
	303-4	Water discharge	59, 83	
	303-5	Water consumption		Water sourced from local governments
	305-1	Direct (Scope 1) GHG emissions		
Emissions	305-2	Energy indirect (Scope 2) GHG emissions		
	305-3	Other indirect (Scope 3) GHG emissions		
	305-4	GHG emissions intensity	58, 83	
	305-5	Reduction of GHG emissions		
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		
Waste	306-1	Waste generation and significant waste-related impacts		
	306-2	Management of significant waste-related impacts	59, 83	
	306-3	Waste generated		
	360-4	Waste diverted from disposal	-	Fully outsourced
	306-5	Waste directed to disposal	-	Fully outsourced
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	-	No non-compliance with environmental laws/regulations during the reporting period



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Topic	Title	Page	Comments
<b>Social Standards (GRI 400)</b>			
<b>Employment</b>	401-1 New employee hires and employee turnover	84	
	401-3 Ratio of employees that returned to work after parental leave ended that were still employed after their return to work, by gender		
<b>Labor/Management Relations</b>	402-1 Minimum notice periods regarding operational changes	75	
	403-1 Occupational health and safety management system	56	
<b>Occupational Health and Safety</b>	403-2 Hazard identification, risk assessment, and incident investigation	60-61	
	403-3 Occupational health services	61, 83	
	403-5 Worker training on occupational health and safety		
	403-6 Promotion of worker health	61	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		
	403-9 Work-related injuries	60, 83	
	403-10 Work-related ill health	83	
<b>Training and Education</b>	404-1 Average hours of training per year per employee (gender, employee category)	84	
	404-2 Programs for upgrading employee skills and transition assistance programs	74-75	
	404-3 Percentage of employees receiving regular performance and career development reviews	74	
<b>Diversity and Equal Opportunity</b>	405-1 Diversity of governance bodies and employees	84	
<b>Freedom of Association and Collective Bargaining</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	No violation
<b>Child Labor</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	75	
<b>Forced or Compulsory Labor</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	65, 75	
<b>Human Rights Assessment</b>	412-2 Employee training on human rights policies or procedures	75	
<b>Local Communities</b>	413-1 Operations with local community engagement, impact assessments, and development programs	80	
<b>Public Policy</b>	415-1 Political contributions	-	None
<b>Customer Health and Safety</b>	416-1 Assessment of the health and safety impacts of product and service categories	61	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	-	None
<b>Marketing and Labeling</b>	417-3 Incidents of non-compliance concerning marketing communications	-	None
<b>Customer Privacy</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	None
<b>Socioeconomic Compliance</b>	419-1 Non-compliance with laws and regulations in the social and economic area	-	No violation recorded during the reporting period

**UNGC, Memberships and Awards**

**UN Global Compact**



This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.  
We welcome feedback on its contents.

UN Global Compact Ten Principles		Page	LS ELECTRIC's Policy
<b>Human Rights</b>	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	p.34-41, Ethics Management p.70-75, Employee	LS ELECTRIC's Code of Ethics and Conduct for employees
	Principle 2: make sure that they are not complicit in human rights abuses.		
<b>Labour</b>	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	p.34-41, Ethics Management p.70-75, Employee	LS ELECTRIC's Code of Ethics and Conduct for employees
	Principle 4: the elimination of all forms of forced and compulsory labour;		
	Principle 5: the effective abolition of child labour; and		
<b>Environment</b>	Principle 6: the elimination of discrimination in respect of employment and occupation.	p.52-61, Environment and Safety	LS ELECTRIC's environmental policy
	Principle 7: Businesses should support a precautionary approach to environmental challenges.		
	Principle 8: undertake initiatives to promote greater environmental responsibility; and		
<b>Anti-Corruption</b>	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	p.34-41, Ethics Management p.70-75, Employee	LS ELECTRIC's Code of Ethics and Conduct for employees
	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.		

**Memberships**

Domestic	Overseas
Korea Chamber of Commerce and Industry, Korea International Trade Association, Federation of Korean Industries, Korea Electrical Manufacturers Association, Korea Smart Grid Association, Korean Standards Association, Korea-Japan Economic Association, Korea Electric Association, Korean Institute of Electrical Engineers, Korea Electrical Contractors Association, International Contractors Association of Korea, Korea Listed Companies Association, Korea Engineering and Consulting Association, Korea New & Renewable Energy, Korea Photovoltaic Industry Association, Korea Fire Safety Institute, Construction Association of Korea, Korea Customs Association, Korea Invention Promotion Association, Korea Electrical Contractors Association, ODVA Korea, Korea Industrial Technology Association, Korean Association for ECOS, Korean Information & Communication Contractors Association, Korea Railway Association, Korea Railway Signal Engineering Association, Korea Mech. Const. Contractors Association, Korea Fire Facility Association, Korea Electric Engineers Association, Korea Products Safety Association, Korea Smart Manufacturing Industry Association, Korean Institute of Power Electronics, Korea Institute of Information & Telecommunication Facilities Engineering, Korean Institute of Electrical and Electronic Material Engineers, Korea Software Industry Association, Korea Software Technology Association, Korea Intellectual Property Association, Korea Industrial Safety Association, Korea Association of Standards & Testing Organizations, Green Company, Environmental Preservation Association, etc.	UN Global Compact, Mechatro Link, ETG(EtherCAT Technology Group), IERE, CIGRE KNC, CIGRE, CAN in Automation

**Awards**

Awardee	Date (month/year)	Award	Hosting Organization	Award Description
<b>Company</b>	Feb.2020	Top 100 Global Innovators	Clarivate Analytics	Top 100 Global Innovators
<b>Company</b>	Dec.2020	Jang Young-shil Technology Innovation Awards	Ministry of Science and ICT	Minister's Award
<b>Individual</b>	Apr.2020	Award of merit for science and technology development (Ho-Jun Lee Senior)	Ministry of Science and ICT	Presidential Citation
<b>Individual</b>	Oct.2020.	Contribution to responding to international environmental regulations (Bong-Jin Oh Senior)	Ministry of Trade, Industry and Energy	Minister's Citation
<b>Individual</b>	Dec.2020.	Excellence Award at the Jang Young-shil Technology Innovation Awards (Sung-Jun Tak Senior, Je-Uk Yeun Senior, Tae-Young Lee Manager, Hae-Eun Jung Manager)	Ministry of Science and ICT	Minister's Award



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