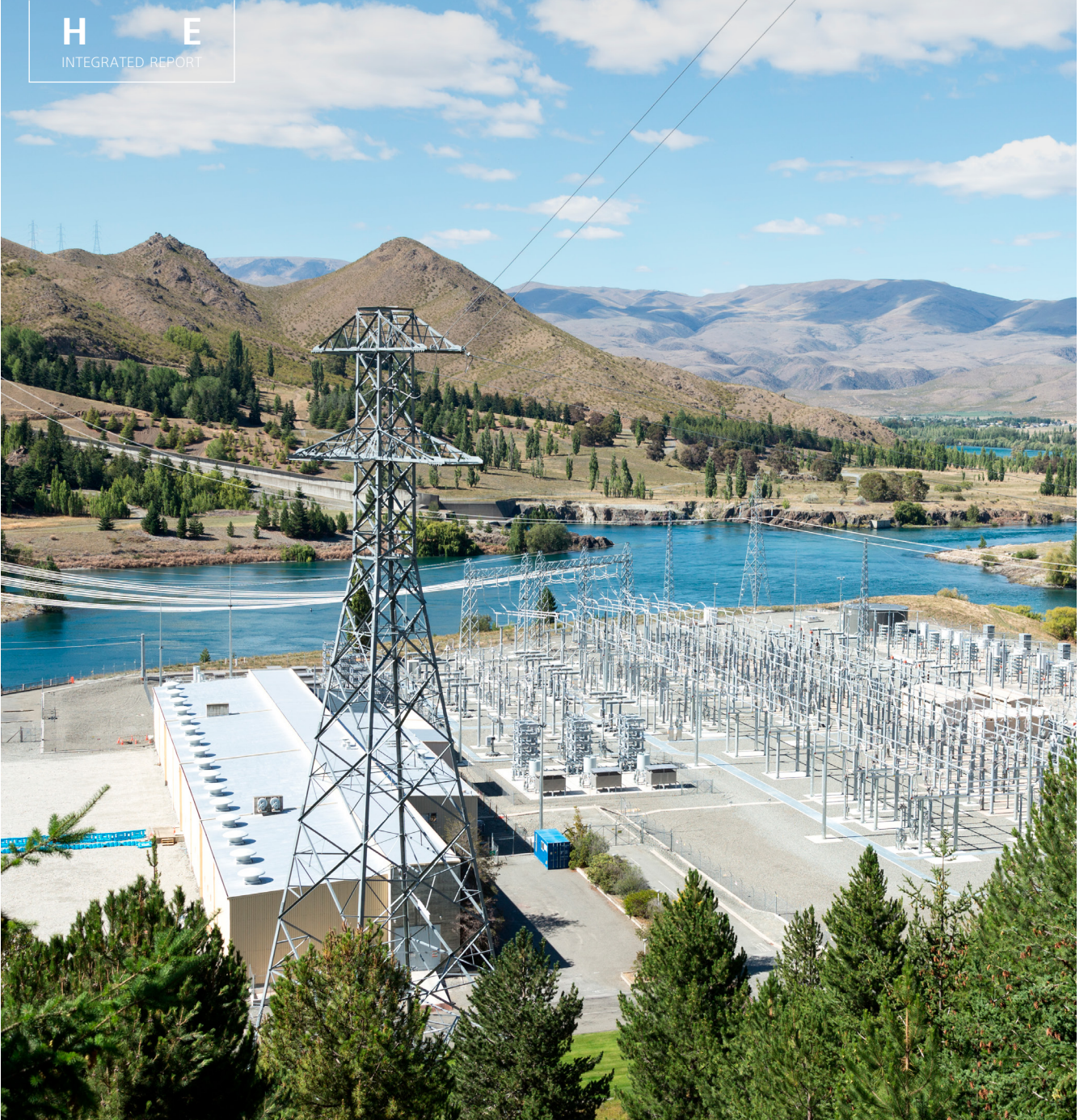


**H E**  
INTEGRATED REPORT



# HYUNDAI ELECTRIC INTEGRATED REPORT 2020

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## 2019 HIGHLIGHT



### HIGHLIGHT 01.

#### Remodeling of 500kV Transformer Factory in Ulsan into Smart Factory

HYUNDAI Electric has recently retrofitted the 500kV transformer plant located in Donggu, Ulsan, into a smart factory. This facility investment adopted the latest technologies including an automation solution, the ICT-driven Manufacturing Execution System (MES), and a real-time integrated operation monitoring system, which are expected to drive a significant benefit to the company in terms of production efficiency and cost structure.



### HIGHLIGHT 02.

#### Successful Capacity Increase in Alabama Branch in US

HYUNDAI Electric has successfully completed its investment to double the production capacity of HYUNDAI Power Transformers USA, Inc., in Alabama, to a level worth USD 200 million a year. This strategic investment helps put the company in a strong position to enter the North American market by proactively addressing anti-dumping duties in the US, an issue that has become more prevalent with the rise of protectionism in the US market.



### HIGHLIGHT 03.

#### Winning of Large-scale ESS Project

HYUNDAI Electric won a KRW 96.9 billion project to provide a full Engineering, Procurement, Installation, and Commissioning (EPIC) service for the Energy Storage System (ESS) with a capacity of 306MWh for Solaseado PV Farm that is currently under construction by Hanyang Inc. in Haenam, South Jeolla Province. Building on our successful fire-free track record in a number of ESS projects, we plan to differentiate ourselves from other players and further solidify our position in the market.

PART. 1

# Business Overview

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# Greetings



President & CEO of HYUNDAI Electric  
Cho Seok

**Your business growth is our first priority.**  
**HYUNDAI Electric continues to grow with its customers.**

Dear stakeholders,

2019 was an unprecedentedly challenging year for global electricity markets where businesses were hit hard by protectionist policies and trade disputes across the globe. Complicated by a combination of factors such as the nuclear phase-out policy, expansion of the new and renewable energy market, and aggressive moves of new emerging market players, the industry is evolving fast and forcing businesses to shift their focus from growth to survival.

In the midst of deteriorating market conditions at home and abroad, HYUNDAI Electric recorded a somewhat tame performance of KRW 1.7711 trillion in consolidated revenue and USD 1.8 billion in orders. But even the adverse conditions could not dampen our spirits as we, despite fierce competition, saw the possibility of a rebound in our target markets by winning orders for Saudi Aramco Marjan project and Hawiyah gas plant project, while also recording a sound growth in the sector for electrical equipment of ships following the recovery of the shipbuilding industry.

In addition, HYUNDAI Electric achieved meaningful results in new business sectors, signing a KRW 100 billion contract to build and operate Energy Storage Systems (ESSs) at Solaseado in Haenam-gun, South Jeolla Province, and winning the first overseas ESS project from PTTGC, Thailand's largest petrochemical company. Our ongoing effort for maintaining sustainable business into the future has started paying off, including the expansion of the Alabama branch in the US, and the completion of the Ulsan Smart Factory to enhance production efficiency. For 2020, we expect similarly challenging market circumstances, with the COVID-19 pandemic and US-China trade war sweeping the world since the beginning of the year. Taking on board the current situation, the company has set a goal of KRW 1.8979 trillion in consolidated revenue and USD 1.747 billion in orders for 2020. HYUNDAI Electric will continue to make concerted efforts to turn this crisis into an opportunity and swing back to profit by wisely navigating the situation based on three management policies - profitability enhancement, innovation in technology and quality, and promotion of new business areas.

Thank you.

## Mission

### HYUNDAI Spirit

We firmly believe there is no challenge too great for us to meet with our dauntlessness and unwavering drive backed up by the infinite potential, no matter how impossible it may seem at the moment.

### Creative Wisdom



Wisdom to seek novelty and innovation to meet the needs of customers and our society

### Strong Determination



Attitude to take bold adventures with a strong sense of mastery

### Unwavering Drive



Power to achieve goals with a strong spirit and indomitable will

### Management Vision

**A Respected Corporation** with Advanced Technologies and High-Quality Products  
**A Trusted Corporation** with Fair and Transparent Management  
**An Admired Corporation** with Social Contributions

### Management Philosophy

We have five management philosophies in place that must be shared and practiced by all personnel to fulfill our corporate social responsibility.

- 1 Enhancing Corporate Value through Continual Growth
- 2 Upholding Fair and Transparent Business Practices
- 3 Pursuing Safe and Environmentally Friendly Business Practices
- 4 Promoting Strong Labor-Management Relations Built on Mutual Respect and Trust
- 5 Demonstrating Our Commitment to Global Corporate Citizenship

## 2020 Business Policy

### Slogan

Turning Crisis into Opportunity

### Business Guidelines

1. A Shared Sense of Crisis
2. An Organizational Culture Of Communication and Participation
3. Technology and Quality Innovations
4. Growing Business, Happy Workplace

## Business Overview

HYUNDAI Electric operates various infrastructure businesses relating to equipment and solutions to produce and supply electricity. Our main customers include state-owned power generation and transmission companies, as well as private power generation and EPC (Engineering, Procurement, and Construction) companies.

### Power Solution

We supply devices and systems for power generation and transmission facilities. Our products include extra-high-voltage transformers and extra-high-voltage gas insulated switchgear.

### Marine Solution

Our marine solutions include switchgear and distribution transformers and motors, and other electronic systems to be installed or embedded to merchant ships, warships, and offshore plants.

### Industrial Solution

We supply rotators, power distribution equipment, and control systems to chemical plants and various industries. Our main products include motors, generators, switchgear, distribution transformers, low & medium voltage circuit breakers, and industrial control systems.

### Energy Solution

We design, procure, and implement integrated management systems, delivering an end-to-end service from production to operations to ensure efficient use of electricity. Major products and services include Energy Storage System (ESS), Building Energy Management System (BEMS), Factory Energy Management System (FEMS), and microgrid solutions.

## 2019 Achievements & 2020 Growth Strategy

### 2019 Achievements

Represented by the delayed recovery of major overseas markets amid the prolonged global economic slowdown and shrinking investments in the power transmission and distribution markets at home, the unfavorable market conditions in 2019 adversely affected our business in securing new orders. As a result, we recorded KRW 1.7711 trillion in consolidated revenue and USD 1.8 billion in new orders. However, we have successfully completed the transformation of Transformer Factory in Ulsan into a smart factory, expansion of Alabama branch in the US, and resource restructuring, which were planned as part of our efforts to strengthen business fundamentals in preparation for a market rebound in the future, and laid the foundation for the performance recovery through greater production efficiency and improved cost structure.

### 2020 Outlook and Targets

HYUNDAI Electric has set 2020 business goals to aim for KRW 1.8979 trillion in consolidated revenue and USD 1.747 billion in orders. Although we have set conservative targets in terms of the volume of the orders compared to the previous year as a result of focusing more on profitability-oriented projects, we expect this year to be the break-even point for us to end the deficit trend and be back in black. Starting this year, we expect to reap the benefit of the productivity improvement initiatives in 2019, including resource restructuring and cost structure improvement and smart factory completion. In addition, the external market conditions are also seeing signs of improvement, with the recovery of demand in Saudi Arabia, the largest market in the Middle East, since the third quarter of last year, and the increased investment into the domestic power transmission/distribution market.

### Growth Strategy

The company will implement the three management policies below with the aim of achieving a swift shift to a surplus and securing sustainable growth engines.

#### 1. Profitability Improvement

- Prioritizing bidding for quality projects with guaranteed profits through thorough profitability and risk assessment
- Minimizing unnecessary expenses by proactively identifying and addressing risk signs for ongoing projects through periodic monitoring

#### 2. Technology and Quality Innovation

- Securing business competitiveness by strengthening technology and quality leadership amid new market trends, such as Distributed Resources (DR) and DC power infrastructure
- Tapping into the smart factory and Reliability Center, the company's new investments despite challenging market conditions

#### 3. Fostering New Businesses

- Staying proactive in the market through bold investments and dedicated new organizations for the power distribution sector and energy solution sector, which will present new business opportunities

## Financial Highlights

Category	Unit	2017	2018	2019	
Total revenue	KRW 100M	14,496	19,404	17,711	
	Power equipment	KRW 100M	7,483	8,776	8,564
	Rotating equipment	KRW 100M	2,574	3,443	3,582
	Distribution equipment, etc.	KRW 100M	4,439	7,186	5,566
Operating profit	KRW 100M	624	-1,006	-1,567	
Net profit	KRW 100M	142	-1,789	-2,643	
Total assets	KRW 100M	20,946	23,261	22,565	
Total liabilities	KRW 100M	10,545	14,748	15,563	
Total equity	KRW 100M	10,401	8,513	7,002	
Debt ratio	%	101.4	173.2	222.3	
Net Debt-to-Equity Ratio	%	26.6	60.5	81.8	
Operating margin	%	4.3	-5.2	-8.9	
Return on assets	%	0.7	-7.7	-11.7	
Credit rating	Grade	A-	A-	A-	

Value Distribution to Stakeholders	Means of Distribution	Unit	2017	2018	2019
Partner companies	Raw material procurement (major raw material purchasing prices, inclusive of intercompany transactions)	KRW 100M	9,398	14,656	12,642
Employees	Salary and benefits	KRW 100M	1,824	2,553	2,315
Shareholders and investors	Interest expense	KRW 100M	145	257	336
Government	Corporate tax (profit)	KRW 100M	81	-374	-693
Local communities	Donations	KRW 100M	15	15	14

# Main Products

## Power Solution

Solutions that enable power generation and transmission within the grid

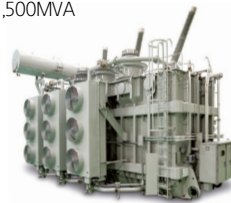
Applications  
: Power Plant and Substation

### Power Transformer

HYUNDAI Electric entered the transformer market in 1978 and has maintained its position as a domestic leader in the field for the past 40 years, supplying more than 1.2 million MVA to 70 countries worldwide on a cumulative basis. Using the latest equipment and production systems in line with international standards, we produce extra-high-voltage transformers with diverse specifications ranging to 800 kV, with a total production capacity of up to 100,000 MVA per year. HYUNDAI Electric has been recognized for its outstanding technology, and our membership of key international technical councils such as CIGRE (Conseil International des Grands Reseaux Electriques or International Council on Large Electric Systems) allows us to take a lead role in establishing technical standards for power grids.

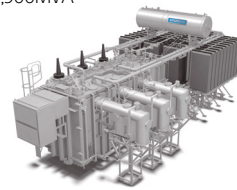
#### Power Plant Transformer

· up to 800kV, 1,500MVA



#### Substation Transformer

· up to 800kV, 1,500MVA



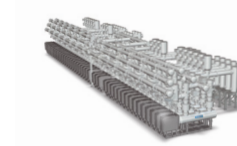
### Gas Insulated Switchgear

Having engaged in the Gas Insulated Switchgear (GIS) business since 1984, HYUNDAI Electronic has been supplying its products to 40 countries worldwide, while maintaining its position as a domestic leader in the field for the past 30 years. Using the latest facilities and production systems in line with the latest international standards, we have the capacity to produce gas insulated switchgear up to 800 kV, the maximum rated voltage in Korea.

Due to the optimum design that enables compact-sized, light-weight features and PD monitoring system application, our gas insulated switchgear is recognized for their high quality and enjoys a large market share in the Middle East, particularly Saudi Arabia.

### GIS

· up to 800kV



### GIS

· up to 800kV



### GIS

· up to 170kV



## Industrial Solution

Solutions supplying power distribution systems, control systems, and drive systems to chemical plants and general businesses

Applications  
: Plant, Oil & Gas, and Building

### Switchgear

HYUNDAI Electric manufactures high-performance, high-reliability switchgear certified to IEC and ANSI and has the largest supply record in the domestic industrial plant market, ranging from various types of buildings to plants, including nuclear power plants.

#### Cubicle GIS (C-GIS)

· up to 40.5kV  
· up to 40kV



#### Medium Voltage Switchgear

· up to 38kV  
· up to 50kA

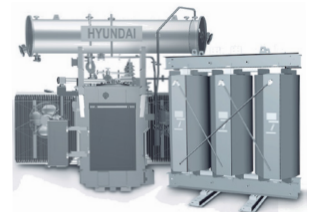


### Distribution Transformer

Since 1976, we have manufactured oil-filled and dry-type distribution transformers, and supplied them for various applications, including industrial plants, apartments, and subways.

#### Distribution Transformer

· up to 72kV, 60MVA



**Low & Medium Voltage Circuit Breaker**

We offer a wide spectrum of low & medium voltage circuit breakers, from MCCBs for use in homes to ACBs and VCBs for industrial plants. Our high quality products safely protect your electrical equipment. The new HG Series won several design awards, including the 'iF Design Award 2016', for its compact, sophisticated designs.

**MCCB**

- AC: up to 150kA, 1,600A
- DC: up to 100kA, 800A



**ACB**

- up to 150kA, 6,300A



**VCB**

- IEC, ANSI, UL
- up to 36/38kV, 50kA, 4,000A



**MCCB, ELCB**

- industrial, household
- up to 10kA, 100A, 100mA



**MCB / RCCB**

- MCB: up to 10kA, 125A
- RCCB: up to 100A, 500mA



**Motor**

A wide range of motors are manufactured and supplied to meet the varying customer needs by considering the environment and operating conditions. Our high voltage motors comply with international standards, including IEC and NEMA.

**Medium Voltage Induction Motor**

- 280~1,400Fr.
- up to 30MW
- 2 to 24 poles

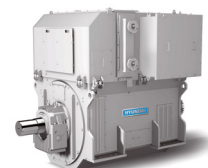


**Generator**

We meet various customer needs by supplying generators for power plants, ships, general industrial use, DPP and PPS. With more than 35 years of experience, we have proprietary design and manufacturing technologies.

**Generator**

- up to 2,700Fr.
- up to 40MVA



**Marine Solution**

Solutions supplying electrical systems to ships and offshore facilities

**Applications**

- General Ship, Warship, and Offshore Plant

**Marine Switchgear**

HYUNDAI Electric manufactures marine switchgear that ensures safe power supply to onboard electric equipment and protects systems in case of electrical accidents. For the past 40 years, we have supplied our products to leading shipyards at home, including HYUNDAI Heavy Industries, Samsung Heavy Industries, and Daewoo Shipbuilding & Marine Engineering. Our unrivaled quality and technology have allowed us to maintain our market leading position at home.

**Marine Switchgear**

- LV Switchboard, MV Switchboard
- Emergency Switchboard
- Thruster Starter
- Group Starter Panel



**Marine Distribution Transformer**

Our products are known for stability, low loss, low noise, and compact and light-weight features. Excellent molding techniques eliminate the risk of explosion or fire. It also boasts excellent crack resistance and insulation.

**Distribution Transformer for Marine**

- Cast Resin: up to 36kV, 15MVA
- Dry type: up to 1.1kV, 3MVA

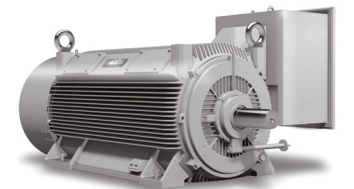


**Rotating Machines for Marine**

We manufacture marine generators and motors in compliance with the standards of international ship classifications including KR, ABS and LRS, and have supplied our products to HYUNDAI Heavy Industries, Wartsila, MAN, and many other engine manufacturers. We produce models not only for general merchant ships, but also warships, FPSOs, drill ships and other special-purpose ships.

**Rotating Machinery for Marine**

- Generator: up to 40MVA
- Motor: up to 30 MW



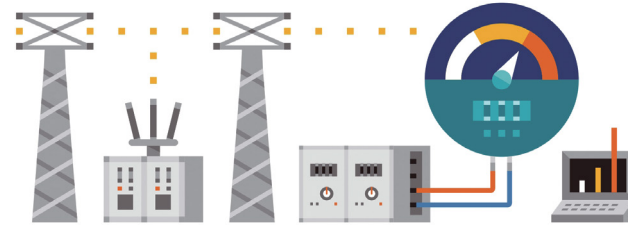


## Energy Solution

Power facility diagnosis and asset management solutions  
New & renewable/industrial energy storage systems and building/factory management systems

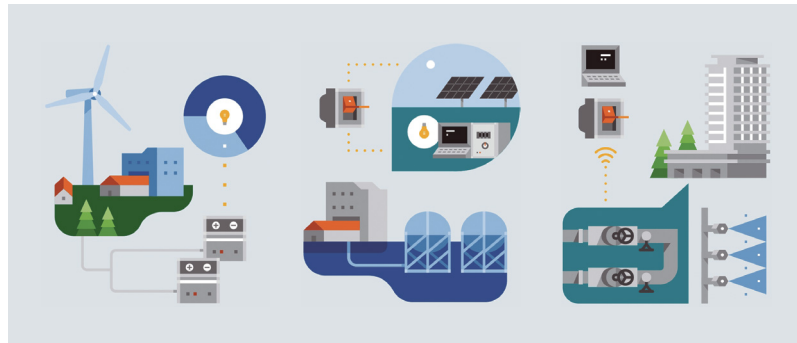
### Asset Management Solution

We maximize overall business efficiency by systematically managing performance, risks, and maintenance expenses according to the Product Life Cycle (PLC) of various products and providing customized asset management solutions tailored to customer needs.



### Energy Management Solution

The energy solution business refers to the business of designing, procuring, and implementing energy systems that enable efficient use of electric power through integrated management of energy production, consumption, sales, and operation. A renewed interest is paid to this business sector at a time when efficient energy management is gaining in importance due to the emergence of various renewable energy sources and structural change in the power industry.



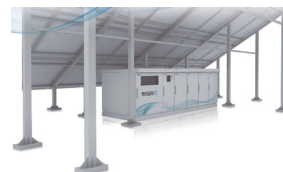
#### Industrial ESS

- Over 100MWh
- Lower electricity bill (peak cut, load balance)
- Monitoring and optimum operation utilizing EMS



#### Renewable ESS

- kWh - MWh capacity
- Optimized operation in consideration of PV generation sources
- Modular package



## Global Network

### Consolidated Entities

HYUNDAI Electric's consolidated subsidiaries (8 entities) manufacture and supply a variety of electrical and electronic equipment and energy solutions required throughout the entire power supply process, ranging from generation, transmission, and distribution to consumption (load).

(As of March 2020, Unit: KRW 1M)

Entity Name	Foundation Date	Location	Main Business	2019 Total Assets
HYUNDAI Technologies Center Hungary kft.	Nov. 5, 1998	Hungary	Technology R&D	8,748
HYUNDAI Electric Switzerland AG	Dec. 1, 2017	Switzerland	Technology R&D	2,387
HDENE Power Solution India Private Ltd.	Dec. 14, 2017	India	Electrical construction and manufacture and sale of power equipment	275
HYUNDAI Heavy Industries (China) Electric Co., Ltd.	Feb. 18, 2004	China	Manufacture and sale of switchgear	106,232
HYUNDAI Heavy Industries (Shanghai) R&D Co., Ltd.	Mar. 7, 2011	China	Technology R&D	4,573
HYUNDAI Power Transformers USA, Inc.	Jun. 4, 2010	US	Manufacture and sale of industrial power equipment	228,842
HYUNDAI Electric Arabia L.L.C	May 24, 2018	Saudi Arabia	Customer support	616
HYUNDAI Electric America Corporation	Mar. 5, 2020	US	Sale of power transformers	2,445

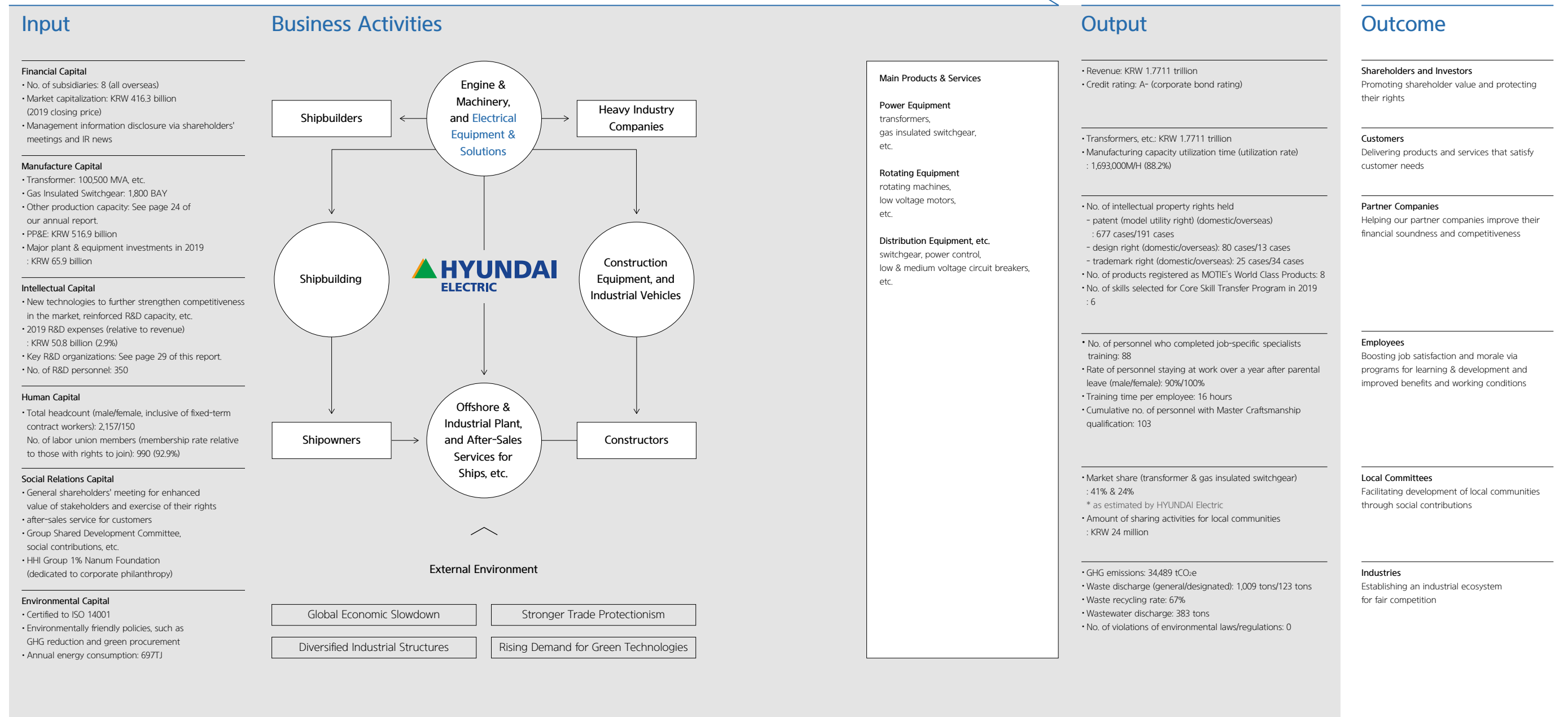
Key Changes in 2020: HYUNDAI Electric sold its entire shares in HYUNDAI Heavy Industries Co. Bulgaria in January 2020 and acquired 100% stake in HYUNDAI Electric America Corporation in March 2020.

### Overseas Branches and Offices

Branch/Office Name	Foundation Date	Location	Main Function
HYUNDAI Electric & Energy Systems Co., Ltd.	Jun. 1, 2017	Atlanta, Georgia, US	Sales promotion for power equipment and rotating equipment
HYUNDAI Electric & Energy Systems Co., Ltd. (Osaka Branch)	Jun. 30, 2017	Osaka, Japan	Sales promotion for rotating equipment
HYUNDAI Electric & Energy Systems Co., Ltd. (Bangkok Branch Office)	Jul. 7, 2017	Bangkok, Thailand	Sales promotion for power equipment
HYUNDAI Electric & Energy Systems Co., Ltd. (Dubai Branch Office)	Oct. 24, 2017	Dubai, UAE	Sales promotion for power equipment
HYUNDAI Electric Riyadh LLC	Dec. 12, 2019	Riyadh, Saudi Arabia	Sales promotion for power equipment
HYUNDAI Electric & Energy Systems Co., Ltd. German Representative Office	Aug. 29, 2017	Frankfurt, Germany	Sales promotion for power equipment and rotating equipment
HYUNDAI Electric & Energy Systems Co., Ltd. (Moscow Branch Office)	Oct. 27, 2017	Moscow, Russia	Sales promotion for power equipment

# Value Chain

HYUNDAI Electric generates value using its outstanding resources and expertise. Each of the six categories of capital invested in our business activities plays a key role in creating economic, environmental and social outputs, which we distribute to stakeholders via each business model built on our management philosophy and visions.



PART. 2

# Sustainability Performance

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## Sustainable Management System

HYUNDAI Electric actively pursues corporate value enhancement through continual growth. The mission of a global corporate citizen is to value the co-prosperity of mankind and to fulfill its corporate social responsibilities and roles. HYUNDAI Electric creates shared values in a wide range of areas, including but not limited to economy, environment and society, based on its well-organized sustainable management activities. Under the three major operational policies as below, we plan and perform various activities for each category and continuously disclose key achievements to stakeholders. HYUNDAI Electric is leading the efforts to make a better tomorrow by actively responding to the needs of our society, and by analyzing and improving our performance as well as strengthening our areas of excellence.

### System and Operational Policy

HYUNDAI Electric operates an efficient and sustainable management system by assigning professionals and departments to each sustainability initiative. Relevant departments perform comprehensive management for planning activities, execution, assessment and company-wide strategic planning. Collected information is utilized to plan and execute new sustainability initiatives and is also used for integrated reporting.



#### Transparent Disclosure

- Operating communication channels customized to different groups of stakeholders
- Disclosing sustainable management activities and achievements



#### Systematic Performance Management

- Following up on each area of sustainable management activities and performance under the five management philosophies



#### Continuous Improvement

- Conducting an multidimensional analysis of sustainable management activities and performance
- Addressing shortcomings and enhancing strengths

## Communication with Stakeholders

Customers, shareholders and investors, partner companies, local communities, industries, and our employees are the key stakeholders that influence and are influenced by HYUNDAI Electric, across all management activities. HYUNDAI Electric operates various communication channels for these stakeholders' participation in sustainable management.



### Customers

#### Issues of Interest

- Customer satisfaction improvement
- Excellent quality
- Safe use of products

#### Key Communication Channels

- Warranty & Lifetime Service
- Feedback Service

#### Direction of Approach

- Offering products and services as well as receiving feedback based on regular communication
- Endeavoring to improve customer satisfaction



### Shareholders and Investors

#### Issues of Interest

- Corporate value increase
- Protection of shareholder interests
- Stable growth
- Transparent disclosure of information

#### Key Communication Channels

- Shareholders' meeting
- Annual report
- IR Meeting
- Conference Call

#### Direction of Approach

- Enhancing transparency of management information
- Building a consensus on vision and new growth engines



### Employees

#### Issues of Interest

- Safe working environment
- Career development
- Benefits
- Respecting diversity/non-discrimination

#### Key Communication Channels

- Collective bargaining and wage negotiations
- Labor-management council
- Industrial Health & Safety Committee
- HHI Group webzine & HYUNDAI Electric news

#### Direction of Approach

- Inducing interest and participation in sustainable management through active internal communication
- Striving to build a cooperative labor-management relationship



### Partner Companies

#### Issues of Interest

- Co-prosperity
- Fair transactions
- Long-term partnership

#### Key Communication Channels

- Group Shared Development Committee
- Shared Growth Expansion Council
- Conference

#### Direction of Approach

- Laying the foundation for co-prosperity and shared growth
- Offering trainings/support for improvement of partner companies' competitiveness



### Industries

#### Issues of Interest

- Creation of an industrial ecosystem
- Improvement of industrial competitiveness

#### Key Communication Channels

- Activities at various academic societies and associations at home and abroad

#### Direction of Approach

- Strengthening competitive edge through fair competition
- Benchmarking, sharing information, and forming partnerships to resolve common issues



### Local Communities

#### Issues of Interest

- Revitalization of local economies
- Local environmental protection
- Social contribution activities

#### Key Communication Channels

- Employee volunteer program
- Conference with organizations under sisterhood sponsorship

#### Direction of Approach

- Contributing to growth and development of local communities through various activities

## Strategic Direction and Performance Indicators

Based on the management philosophy of HYUNDAI Heavy Industries Group, HYUNDAI Electric is promoting long-term and strategic sustainable management activities. The management philosophy of a company is the value shared and practiced by all its employees in order to faithfully fulfill the CSR. Accordingly, HYUNDAI Electric annually sets the implementation direction for sustainable management and metrics for the relevant goals, which we aim at in everything we do.

Scope: Domestic business establishments							
Philosophy	Direction	Metrics for Strategic Goal	Stakeholder	Category	Indicator	Unit	2019
Enhancing corporate value through continual growth	<ul style="list-style-type: none"> <li>Securing core capability to drive future growth</li> <li>Implementing flexible business management and global business system</li> </ul>	<ul style="list-style-type: none"> <li>R&amp;D expenses, and no. of patent applications filed</li> <li>Operation and internal evaluation of Quality Management System, and no. of personnel who completed quality management trainings</li> <li>No. of manufacturing engineers who completed job improvement trainings</li> </ul>	Customers Employees Partner companies Shareholders	R&D	R&D expenses (relative to revenue) <sup>1</sup>	KRW 1M	50,782 (2.9%)
				Quality management	Patent registration <sup>2</sup>	Casecount	741
					Rate of worksites certified to ISO 9001	%	100
					Internal evaluation of quality management system	Casecount	32
					Personnel who completed quality management trainings	Headcount	576
Upholding fair and transparent business practices	<ul style="list-style-type: none"> <li>Supporting open and fair competition in accordance with free market economy</li> <li>Promoting sound and transparent corporate governance structure</li> </ul>	<ul style="list-style-type: none"> <li>No. of participants in compliance and ethics management trainings</li> <li>Compliance with laws/regulations</li> <li>Attendance rate of outside directors</li> </ul>	All	Compliance management	Personnel who completed compliance management trainings	Headcount	300
				Business ethics	Sanctions imposed on the Company <sup>3</sup>	Casecount	13
					Personnel who completed business ethics trainings (partner companies) <sup>4</sup>	Headcount	10,103 (34)
					Attendance rate of outside directors	%	93.3
Pursuing safe and environmentally friendly business practices	<ul style="list-style-type: none"> <li>Creating a pleasant and safe work environment</li> <li>Environmentally friendly production activities and technology development</li> </ul>	<ul style="list-style-type: none"> <li>Accident rate and amount of spot rewards for exemplary safety practices</li> <li>No. of personnel who completed safety trainings</li> <li>No. of personnel who used health promotion services</li> <li>GHG emissions</li> </ul>	Employees Partner companies	Safety management	Accident rate <sup>5</sup>	%	0.2
				Health management	Amount of spot rewards for exemplary safety practices	KRW 1,000	118,500
					Safety Academy attendees	Headcount	33
					Usage of company-provided medical services <sup>6</sup>	Headcount	3,635
					Environmental management	GHG emissions	tCO <sub>2</sub> e
Promoting strong labor-management relations built on mutual respect and trust	<ul style="list-style-type: none"> <li>Fostering a vibrant organizational culture based on trust and participation</li> <li>Performing all duties and responsibilities to enhance corporate competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>No. of personnel who completed management-labor relations trainings and union membership rate</li> <li>No. of personnel who completed talent nurturing course and amount of investment in talent nurturing</li> <li>Fair performance evaluation and improvement in employees' quality of life</li> </ul>	Employees Partner companies	Labor-management relations advancement	Union membership rate (relative to those eligible for collective bargaining)	%	92.9
				Learning & development	Training time per employee	Hours	16
					Investment in training	KRW 10M	9
				Evaluation & compensation	Rate of personnel evaluated for performance <sup>7</sup>	%	97.6
				Employees' quality of life	Rate of personnel staying at work over a year after parental leave (male/female)	%	90/100
Demonstrating our commitment to global corporate citizenship	<ul style="list-style-type: none"> <li>Contributing to mankind prosperity by creating social values</li> </ul>	<ul style="list-style-type: none"> <li>Amount of shared growth funds and early payment for deliveries</li> <li>Participation in social contribution activities and amount of salary donation</li> </ul>	Partner companies Employees Local communities	Shared growth	Amount of early payment for deliveries	KRW 100M	905
				Social contribution	Amount of salary donation	KRW 1,000	29,081

<sup>1</sup> On a consolidated basis at HYUNDAI Electric

<sup>2</sup> As of registration date: Inclusive of patents, model utility rights, and design rights (domestic/overseas)

<sup>3</sup> For further details, see Chapter XI of our annual report 2019: "Other disclosure items necessary for investor protection"

<sup>4</sup> Inclusive of all forms of ethics management trainings such as classroom and online sessions

<sup>5</sup> Inclusive of partner companies

<sup>6</sup> Visits to oriental medical clinics, in-house hospitals, or health promotion centers





<sup>7</sup> Exclusive of personnel newly hired, on leave, or scheduled to retire

## UN SDGs

The UN Sustainable Development Goals (SDGs) set forth a universal call to action for the period from 2016 to 2030, to achieve sustainable development on a global scale. Achieving the goals requires efforts and cooperation throughout our society, and the role of a company in this context is to create a growth engine and innovations for economic development and job creation. By aligning its management direction with SDGs, a company can not only create a new business model but also evolve into a sustainable entity.

HYUNDAI Electric continuously works on strategies for the Group's mid/long-term growth by identifying key global trends through the UN SDGs. Of the 17 goals, our focus mainly lies on 9 goals (3, 4, 6-10, 12, and 16) and 23 targets, as we strive to contribute to implementing this blueprint to achieve a better and more sustainable future for all.

Key SDGs	Targets	HYUNDAI Electric's Contribution to Achieving SDGs
 <b>Ensure healthy lives and well-being for all at all ages</b>	3.4 Reduce premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	<ul style="list-style-type: none"> <li>Supporting medical expenses and checkups for the healthy lives of personnel; operating Oriental Medical Center ; and providing examinations for occupational diseases</li> <li>Health care programs for personnel such as smoking cessation and weight management treatment</li> </ul>
	3.8 Achieve universal health coverage, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	
	3.9 Reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	
 <b>Ensure inclusive and equitable quality education, and lifelong learning opportunities for all.</b>	4.4 Increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	<ul style="list-style-type: none"> <li>Nurturing highly skilled professionals through a variety of technological training infrastructures and well-organized education programs</li> <li>Operating Core Skill Transfer Program</li> </ul>
	4.5 Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, indigenous peoples and children in vulnerable situations.	
 <b>Ensure availability and sustainable management of water and sanitation for all.</b>	6.3 Reduce untreated wastewater and improve water quality by reducing pollution, minimizing release of hazardous chemicals, and increasing water recycling	<ul style="list-style-type: none"> <li>Self-checking major wastewater discharge sources and reducing the amount of untreated wastewater by reusing laboratory water</li> <li>Developing a procurement system for managing chemical substances</li> </ul>
 <b>Ensure access to affordable, reliable, sustainable and modern energy for all.</b>	7.2 Increase the share of renewable energy in the global energy mix.	<ul style="list-style-type: none"> <li>Securing orders for a large-scale ESS project</li> <li>Improving production efficiency and reducing cost through building a smart factory environment in Ulsan</li> </ul>
	7.3 Double the global rate of improvement in energy efficiency.	
 <b>Promote sustained, inclusive, sustainable economic growth, full and productive employment and decent work for all.</b>	8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labor-intensive sectors.	<ul style="list-style-type: none"> <li>Increasing economic productivity and creating jobs through securing engines for continual growth by building smart factories and utilizing the reliability assessment center</li> <li>Creating quality jobs through employment</li> <li>Implementing a fair and objective performance evaluation &amp; compensation system for all personnel</li> <li>Offering trainings and financial services to partner companies to promote shared growth</li> <li>Creating a roadmap for human rights management at the Group level</li> </ul>
	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small/mid-sized enterprises, including through access to financial services.	
	8.5 Achieve full and productive employment and decent work for all women and men, and equal pay for work of equal value.	
	8.6 Reduce the proportion of youth not in employment, education or training.	
	8.7 Prohibit forced and child labor.	

Key SDGs	Targets	HYUNDAI Electric's Contribution to Achieving SDGs
 <b>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</b>	9.4 Increase resource-use efficiency and adopt clean and environmentally sound technologies.	<ul style="list-style-type: none"> <li>Developing technologies for insulation and cooling design that enables change of insulating oil to vegetable oil</li> <li>Developing Eco Gas Insulated Switchgear (EGIS) by applying eco-friendly insulation medium, dry air</li> <li>Investing in environmental equipment including the repair of worn-out dust collectors</li> </ul>
 <b>Reduce inequality within and among countries.</b>	10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.	<ul style="list-style-type: none"> <li>Caring for the underprivileged, pursuing co-prosperity with local communities, and promoting independence for future generations</li> </ul>
 <b>Ensure sustainable consumption and production patterns.</b>	12.2 Achieve sustainable management and efficient use of natural resources. 12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, under agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. 12.5 Reduce waste generation through prevention, reduction, recycling and reuse. 12.6 Encourage companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle.	<ul style="list-style-type: none"> <li>Acquiring international certification for environmental management system</li> <li>Performing simulation exercises to reinforce emergency response capabilities for chemical accidents</li> <li>Environmental clean-up activities around worksites</li> <li>Introducing a hazardous chemicals management system</li> </ul>
 <b>Manage and protect marine and coastal ecosystems to avoid significant adverse impacts, and take action for their restoration in order to achieve healthy and productive oceans.</b>	16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all. 16.5 Reduce corruption and bribery in all their forms. 16.6 Develop effective, accountable and transparent institutions at all levels. 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels.	<ul style="list-style-type: none"> <li>Implementing transparent and responsible management by valuing compliance and business ethics</li> <li>Implementing reasonable governance structure to maintain checks and balances</li> <li>Pursuing inclusive management activities by engaging various stakeholders in management, including active communication with the labor union</li> </ul>

# Materiality Assessment

## Materiality Assessment Process

Each year, to select core topics of the annual integrated report, HCE conducts a materiality assessment regarding stakeholders' interests, improvements, and business impact levels on corporate activities. The assessment of 2020 identified a pool of 28 topics in light of global reporting standards, such as GRI Standards and the UN SDGs, various social issues, and sustainable management information within the same industries. The identified issues are classified into core, top and general topics by levels of public attention and business impact.

This report discloses HCE's management approach to and key performance relating to the core topics, and where deemed necessary for continuity with past reports and/or complete disclosure of information regarding value creation, also discloses those relating to top and general topics.

### Step 01. Identify Sustainable Management Topics

Identified 28 topics that affect HYUNDAI Electric's sustainable management activities and value creation, taking into account sustainable management trends and the requirements under global guidelines.

### Step 02. Assess Public Interest

1. Analyzed global guidelines (e.g., GRI Standards and UN SDGs).
2. Analyzed media exposure by categorizing items into three groups: economic, environmental, and social issues. (6,508 items)
3. Analyzed the sustainable management reports of the peer group within the same industries.
4. Conducted a survey on external stakeholders' interest. (March 2020)

### Step 03. Assess Business Impact

1. Conducted a survey on internal stakeholders' interest. (4,076 respondents)
2. Analyzed Key Performance Index (KPI) per function.

### Step 04. Verify Effectiveness

Reported the materiality assessment result to and obtained approval from the decision maker.

## Materiality Assessment Result

### Five Key Management Philosophies

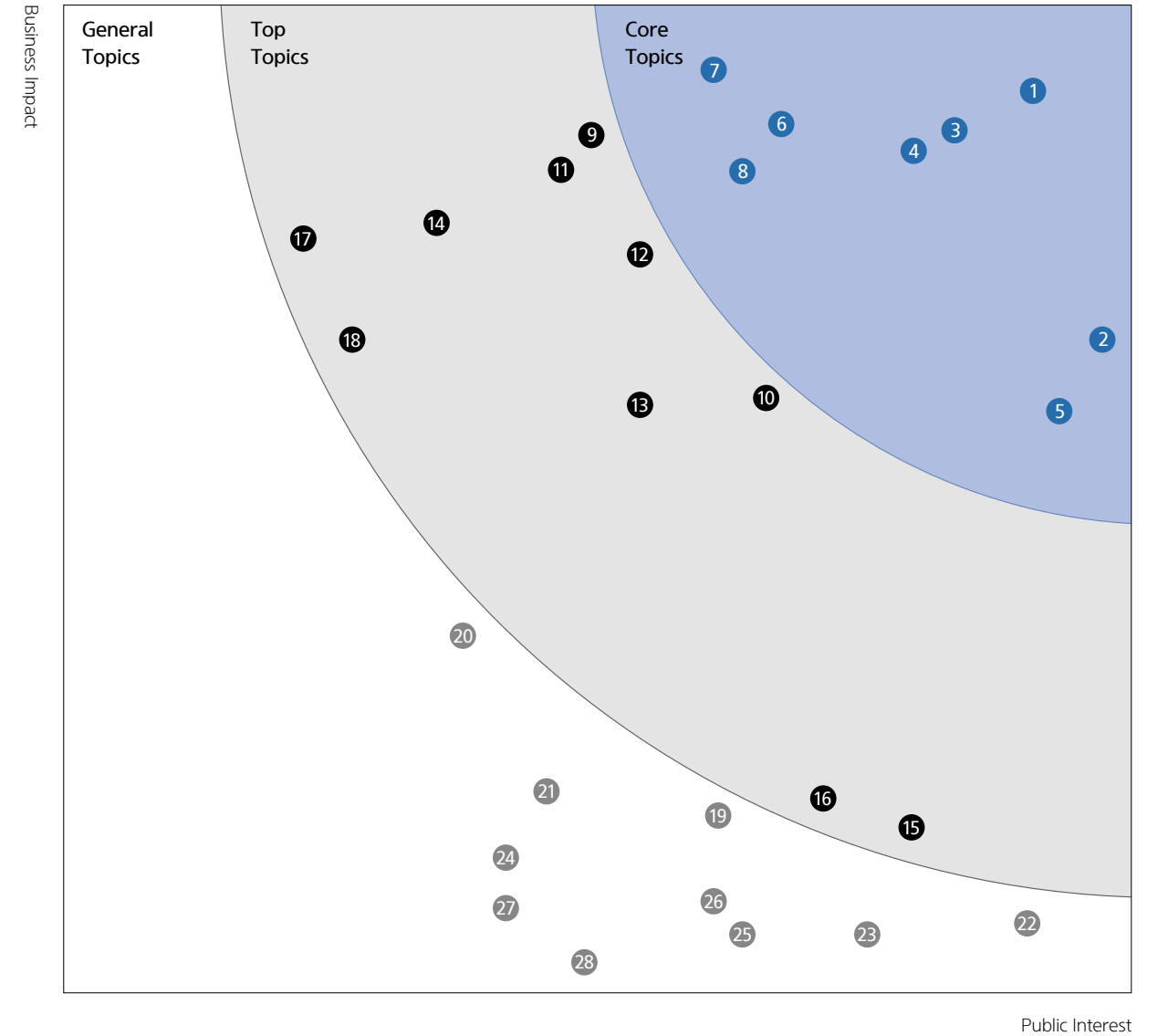
1. Enhancing Corporate Value Through Continual Growth ① ④ ⑤ ⑦
2. Upholding Fair and Transparent Business Practices ②
3. Pursuing Safe and Environmentally Friendly Business Practices ⑤ ⑥
4. Promoting Strong Labor-Management Relations Built on Mutual Respect and Trust ③ ⑧
5. Demonstrating Our Commitment to Global Corporate Citizenship -

Core Topic	Topic Boundary	GRI Topic	Ranking by Category	
			by Public Interest	by Business Impact
① Expanding R&D and securing new technologies	· Internally: R&D · Externally: research institutes	N/A	4	2
② Compliance management and business ethics	· Internally: R&D, procurement, production, and sales & marketing	102-16 through 17, 205-2, 206-1, 307-1, 417-2 through 3, 418-1, 419-1	1	14
③ Reinforcing competencies of personnel (HRD)	· Internally : all companies	404-1 through 3	7	6
④ Diversifying business and exploring new opportunities	· Internally : all companies	N/A	8	7
⑤ Pursuing environmental management by developing more environmentally friendly technologies	· Internally : R&D and production · Externally : local communities	N/A	2	16
⑥ Creating a safe workplace and raising safety awareness	· Internally: production · Externally: partner companies	403-1 through 4	11	4
⑦ Improving product/service quality and enhancing customer satisfaction	· Internally: production · Externally: partner companies	N/A	15	1
⑧ Enhancing job security and promoting sound labor-management relations	· Internally : all companies	102-41, 402-1	12	9



## Materiality Assessment Matrix

- |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Core Topics</b>    | <ul style="list-style-type: none"> <li>① Expanding R&amp;D and securing new technologies</li> <li>② Compliance management and business ethics</li> <li>③ Reinforcing competencies of personnel (HRD)</li> <li>④ Diversifying business and exploring new opportunities</li> <li>⑤ Pursuing environmental management by developing more environmentally friendly technologies</li> <li>⑥ Creating a safe workplace and raising safety awareness</li> <li>⑦ Improving product/service quality and enhancing customer satisfaction</li> <li>⑧ Enhancing job security and promoting sound labor-management relations</li> </ul>                                              |
| <b>Top Topics</b>     | <ul style="list-style-type: none"> <li>⑨ Attracting and retaining talent</li> <li>⑩ Ensuring sound governance</li> <li>⑪ Respecting human rights of all personnel</li> <li>⑫ Ensuring customer safety and health</li> <li>⑬ Enhancing fair trade system</li> <li>⑭ Improving the quality of life for all personnel, including through a better welfare system</li> <li>⑮ Improving material and energy efficiency</li> <li>⑯ Promoting shared growth with partner companies</li> <li>⑰ Ensuring fair distribution of earnings</li> <li>⑱ Ensuring information security, including through protecting confidential and personal information</li> </ul>                   |
| <b>General Topics</b> | <ul style="list-style-type: none"> <li>⑲ Respecting human/labor rights of partner companies' personnel</li> <li>⑳ Operating an integrated risk management system</li> <li>㉑ Communication with stakeholders</li> <li>㉒ Contributing to co-prosperity of local communities</li> <li>㉓ Reducing adverse environmental impacts of partner companies</li> <li>㉔ Ensuring diversity and inclusion</li> <li>㉕ Reducing waste and pollutant emissions</li> <li>㉖ Addressing climate change issues, including GHG emissions control</li> <li>㉗ Building and operating resource circulation, reuse, and recycling framework</li> <li>㉘ Social contribution activities</li> </ul> |



## Enhancing Corporate Value Through Sustainable Growth

Creating new growth engines through continual change and innovation is crucial to sustainable growth in the fast-paced global business environment. HYUNDAI Electric will enhance corporate and shareholder value and deliver customer satisfaction by identifying quality and technology as top priorities.

R&D	p.33
Quality Management	p.38

## R&D

With its enduring efforts to develop cutting-edge technologies that ultimately set itself apart from all others, HYUNDAI Electric is navigating times of uncertainty and securing new growth engines for the future to ensure its sustainable growth. Our focus of R&D efforts is to establish infrastructure for power transmission and transformation, and also power distribution and solutions that are expected to provide new business opportunities.

### Management System

Category	Details
Vision	· Global technology leader in the electric power industry
Mission	· 'Innovation through cooperation' & 'Profitability through excellent technology'
Strategy and Direction	<ul style="list-style-type: none"> <li>· Expanding the existing markets through enhanced product competitiveness</li> <li>· Exploring new markets through new product/model development</li> <li>· Securing new growth engines through the development of electric power ICT solutions</li> <li>· Enhancing customer satisfaction through market responsiveness</li> </ul>

### Governance of R&D

Category	Details
Executive in charge	· Chief Technology Officer – Senior Vice President
Decision-making body (meeting frequency)	· Technology Development Committee (semiannually)
Responsible organization	<ul style="list-style-type: none"> <li>· Yong-in R&amp;D Division                             <ul style="list-style-type: none"> <li>- Exploring future growth engines and developing new products/models</li> <li>- Strengthening competitiveness of flagship products</li> <li>- Applying ICT to products</li> <li>- Conducting reliability assessment</li> </ul> </li> <li>· Overseas research centers (Switzerland, Hungary, and China)                             <ul style="list-style-type: none"> <li>- Securing core technologies for electric power equipment and developing new products</li> <li>- Enhancing market responsiveness through enhanced cooperation and R&amp;R allocation with the headquarters for product development</li> <li>- Allocating R&amp;R areas with the headquarters for the designing/analysis process and developing products for the global mid-to-low priced market</li> </ul> </li> </ul>

(As of March 2020)

Performance Indicators

Category	Unit	2017	2018	2019
R&D expenses <sup>1</sup>	KRW 100M	39,052	57,816	50,782
R&D expenses relative to revenue	%	2.7	3.0	2.9
R&D personnel <sup>2</sup>	Headcount	225	240	350
No. of patent registrations <sup>3</sup>	Caseload	650	702	741
No. of patents of environmentally friendly technologies <sup>4</sup>	Caseload	89	92	102
No. of intellectual property right applications <sup>5</sup>	Caseload	424	353	220

<sup>1</sup> Based on our annual report

<sup>2</sup> Inclusive of 82 in the overseas research institutes (as of December 2019)

<sup>3</sup> As of registration date; Inclusive of patents, model utility rights, and design rights (domestic/overseas)

<sup>4</sup> As of application date (domestic/overseas)

<sup>5</sup> As of application date; Inclusive of patents, model utility rights, and design rights (domestic/overseas)

R&D Achievements

**Development of 362kV 63kA Condenser-Less Circuit Breaker**

As the 362kV GIS (63kA, 6,300A) used in KEPCO's (Korea Electric Power Corporation) existing power transmission system had issues in terms of power grid instability and costliness, KEPCO revised its ES (engineering specification) and requested domestic manufacturers to develop products that will address such problems. To apply our condenser-less circuit breaker that has been applied to the overseas market products to the circuit breakers for KEPCO, we finished design improvement and performance verification, and passed various development tests such as high-power circuit breaker test including SLF (short line fault), small current switching test, and insulation test in KERI (Korea Electrotechnology Research Institute). As a result, we became the first Korean manufacturer of a 362kV 'condenser-less circuit breaker.' By satisfying the required specifications by KEPCO, the largest domestic customer, we secured an advantageous position in this market and expect revenue increases as we are now well positioned to actively respond to the future demands for 'condenser-less circuit breakers' in the KEPCO market.

**Development of Lightweight 2-Pole Welded-Type Motor**

HYUNDAI Electric developed a lightweight two-pole welded-type motor with a stiff shaft structure in which the rotor's critical speed (natural frequency) is over the synchronous speed of 3,600 rpm. We implemented the lightweight/high-power design through benchmarking of products from other leading companies and cooperation with our Hungary-based H-TEC. This new model's power density (power/weight) increased by an average of 19% compared to the previous standard model and 43% compared to the previous stiff shaft motor, resulting in about an 8% material cost reduction. Based on the power density on a par with or higher than that of other leading companies, we expect to receive continuous orders for this new model in the domestic and overseas motor markets.

**Development of Multiple Gas (6 types)**

**Measurement Technology for Power Transformers**

We became the first Korean company that developed a multiple gas (six types) measurement technology to diagnose abnormalities in power transformers, which had been previously held only by global leading players in the industry. This technology uses photoacoustic spectroscopy to detect the six types of dissolved gases (C<sub>2</sub>H<sub>2</sub>, C<sub>2</sub>H<sub>4</sub>, C<sub>2</sub>H<sub>6</sub>, CH<sub>4</sub>, CO, and CO<sub>2</sub>) in the transformer in operation. Whereas previous gas analysis technologies could only analyze simple gases (H<sub>2</sub> and CO) through gas sensors, this new technology can measure and analyze multiple gases. To assess measurement sensitivity, we used standard gas mixtures accepted by the US National Institute of Standards and Technology. As a result, we secured a high-precision technology with less than 1 PPM errors on a par with that of global leading companies. This technology is expected to trigger the domestic development of multiple gas analysis devices to replace imported devices.

**Accreditation of Reliability Assessment Center by KOLAS**

On February 27, our Reliability Assessment Center was accredited by the Korea Laboratory Accreditation Scheme (KOLAS) under Korean Agency for Technology and Standards of Ministry of Trade, Industry and Energy for conducting tests in the three areas of insulating oil, high voltage, and Electro-Magnetic Compatibility (EMC) as well as 50 specification ranges. Accordingly, the performance reports issued by the Center on the accredited areas and ranges should be accepted both at home and abroad, and further accreditation tests are not required for export purposes. This would reduce the development period and cost, and raise the product reliability and brand image of HYUNDAI Electric. Since the establishment in May 2018, the Center has prepared for KOLAS accreditation in terms of organization, personnel, and facilities, and completed various trainings (ISO/IEC 17025 general and measurement uncertainty), procedure statement, comparative proficiency and uncertainty testing. It applied for accreditation in November 2018 and obtained the official accreditation in January 2019 after strict on-site inspections and the final deliberation by the accreditation committee.

## R&D Plans

### 2nd Phase Development of Low-Loss KEPCO Substations

In line with the trends in the electric power equipment market, HYUNDAI Electric completed the first-phase development of a low-loss transformer for KEPCO substations that satisfies EU's eco design. As the market is expected to put a greater emphasis on no-load losses, design improvement is needed for the transformer to meet demands for higher specifications and stricter regulations on losses with minimized outer box size and transportable weight.

As domestic competitors are also now in the first phase and about to begin the second-phase development, we are working on the designing and manufacturing for the second-phase development of low-loss substations that will meet KEPCO requirements, based on the low-loss designing skills secured through the first-phase development.

### Development of Eco-Friendly GIS (hydraulic) at 170kV 50kA 1000A

Filled with dry air or CO<sub>2</sub> and fluoro-based mixed gases which replace SF<sub>6</sub> that has a great global warming potential, the eco-friendly Gas Insulated Switchgear (GIS) consists of circuit breakers, disconnectors, earthing switches, current transformers and bushings. Installed in power plants and substations in the same way as the previous SF<sub>6</sub> gas insulated electric power equipment, the eco-friendly GIS provides system protection such as rated current operation, making and breaking of fault currents, etc. As KEPCO plans to place its first order of the eco-friendly 170kV GIS in 2021, we aim to use this new development to lay the foundation for making inroads into the GIS market at home and abroad, thereby achieving greater revenue and profit from a broader business area.

### Development of Low-Voltage Semi-Enclosed Rolled Steel Induction Motor for Industrial Use

In the Americas market for electric motors, the semi-enclosed motor type is growing faster than the totally-enclosed type, requiring us to develop cost-cutting models with an optimal design of frame structure which uses rolled steel rather than casting. HYUNDAI Electric aims to actively participate in the Americas market by developing low-voltage semi-enclosed rolled steel induction motors for industrial use based on a low-loss design and a cooling/ventilation design aimed at achieving IE3 efficiency requirements.

### Development of Industrial Smart Switchgear Solution

A smart switchgear solution is a preventive diagnosis solution for power distribution equipment which provides preventive diagnosis systems and all related engineering services, such as remote monitoring/diagnosis. So far, functions such as condensation/degradation diagnosis and partial discharge diagnosis either have been developed or are under development, to be applied to various construction projects.

### Development of Multiple Gas (GM9-L) Analysis Equipment

Oil-filled transformers in which insulation oil is immersed often experience overheating or discharge due to overload or breakdown. As they have gases such as hydrocarbon within the oil, these dissolved gases have been commonly used to diagnose the cause of transformer breakdowns, and more recently, ICT-converged, real-time online detectors have been developed and are being used. HYUNDAI Electric also developed a product that analyzes nine types of dissolved gas and is now conducting on-site demonstrations to commercialize the product.

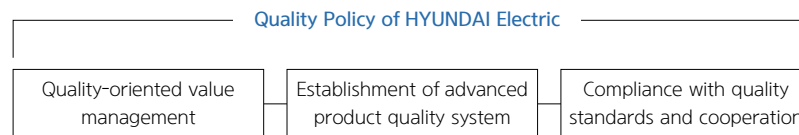
## 2020 Initiatives

- Developing economical models of flagship products (small/mid-sized power transformers/welded-type motors for the Americas market)
- Expanding the new product/model lineup and developing new products for eco-friendly/high-efficiency markets
- Expanding the lineup of ICT-based intelligent and smart products and enhancing the lineup and technologies for asset management/energy solution products
- Improving customer satisfaction through stronger market responsiveness (technical support for sales and promotional activities for brand image enhancement)

## Quality Management

HYUNDAI Electric has established and operated the quality policy in order to promote stakeholders' satisfaction and confidence and meet requirements from customers and regulations. We have obtained and maintained ISO9001 certification for ensuring reliability of our Quality Management System (QMS) while operating quality trainings to keep a stable quality level. Furthermore, we conduct tests and assessments in the Reliability Assessment Center to enhance product reliability and perform quality management of partner companies to ensure a consistent quality level throughout the value chain.

### Management Policy



### Governance of Quality Management

Category	Description
Management system	· ISO9001 (Quality Management System) certification
Executive in charge	· Head of Quality Management Dept. (directly controlled by CEO)
Decision-making body (meeting frequency)	· Chaired by CEO: Quality meeting (semiannually) · Chaired by head of Divisions: Quality meeting (bimonthly/weekly)
Responsible organization	· Quality Management Dept.: Quality management control tower for domestic and overseas entities · Power Distribution Equipment QM Dept.: QM of Power Distribution Equipment Division
Company-wide quality management indicator	· Test defect rate · Customer complaint rate · Quality failure cost

## Performance Indicators

Category	Unit	2017	2018	2019
Internal quality audit	Caseload	9	21	32
Quality audit of in-house and outside partner companies	Caseload	151	154	122
Personnel who completed quality training course (inclusive of partner companies)	Headcount	346	136	576

## Quality Management Achievements

### QMS Operation and Assessment

HYUNDAI Electric sets and monitors the quality target and detailed plans for each division and department according to the Company's quality policy, which helps enhance the effectiveness of quality management and promote a customer-oriented QMS. We have obtained and maintained ISO 9001 certification, the international standard on QMS, to ensure the effectiveness of our QMS operation

### Quality Training

In an aim to achieve the quality levels as required by customers, HYUNDAI Electric provided nine quality training courses which were completed by a total of 576 employees of HYUNDAI Electric and partner companies in 2019. Seven training courses are scheduled in 2020, and in particular, active support will be provided to quality management personnel who want to take external courses or obtain certifications for expertise enhancement. We will continue to develop training courses and nurture excellent quality experts to ensure a reliable quality level.

### Quality Failure Costs

HYUNDAI Electric manages quality failure costs as a Key Performance Indicator (KPI) for stricter accountability for quality issues and better management of targets. Through the failure cost analysis, we discover quality issues and make improvement efforts to cut quality failure costs. As a result of various quality improvement efforts such as advanced product quality enhancement in 2019, we were able to cut quality failure costs by about 30% from the previous year.

### Quality Management for Partner Companies

HYUNDAI Electric has improved the quality level of partner companies by providing regular quality assessments and technical trainings. We achieve a stable quality level of partner companies by managing changes in 4M (man, machine, method, and material) and inspecting the measures taken to prevent recurrence of quality issues. For the partner companies which conduct special procedures, in particular, we assign in-house professionals with expertise in the special procedures to give technical guidance tailored to the level of each partner company. We also contribute to the improvement of base quality by updating in-house technical standards that reflect customer requirements.

**Operation of Reliability Assessment Center**

Conducting 320 tests in 2019, our Reliability Assessment Center has played a key role in the enhancement of product quality and reliability. In 2020, the Center will advance test technologies by each test lab and enhance test capabilities to respond to the needs of field personnel in a timely manner. The Center will strengthen its position as an internationally accredited test institute by expanding the scope accredited by KOLAS and enhance test capabilities for low and medium voltage circuit breakers.

**2020 Initiatives**

- Rationalizing quality costs
- Advancing the quality system of overseas entities
- Expanding technical guidance for quality management to outsourcing partner companies

## Upholding Fair and Transparent Business Practices

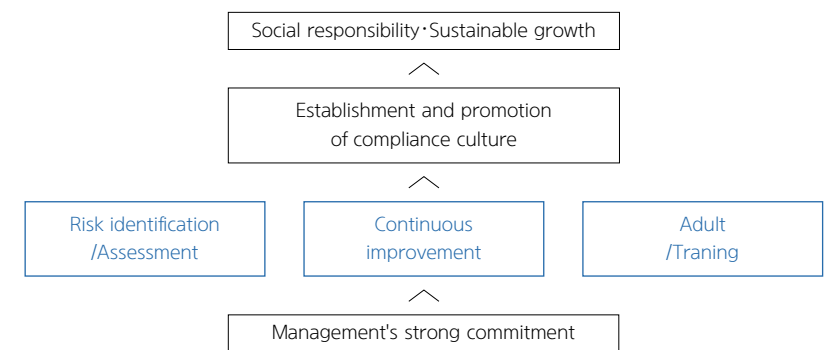
HYUNDAI Electric aims to be the most transparent company, rather than the largest one. By upholding sound ethical practices and compliance, we will work to create a market environment that contributes to the growth of all our stakeholders and the sustainability of our society.

Compliance Management	p.43
Business Ethics	p.46
Greater Management Transparency	p.52

## Compliance Management

HYUNDAI Electric is committed to raising awareness of ethical and lawful conduct and complying with all applicable laws and regulations by ensuring the compliance guidelines are embedded in all our business activities. Our Compliance Program (CP) has been in existence since 2019, and we actively engage in compliance activities such as assessment, audit, training, and consulting.

### Management System



### Governance of Compliance Management

Function/Position (Role)	Responsibility
BoD/CEO	· Confirming compliance plans and setting directions; discussing and deciding compliance-related agenda
Compliance Officer	· Establishing/amending compliance standards and rules; Offering compliance education and running relevant training programs; Performing compliance audits
On-site compliance officer/on-site compliance organization	· Organization name: Legal Team · Training compliance staff on compliance systems and related laws and regulations; Internal compliance audit and monitoring organization · Scope: HYUNDAI Electric and overseas entities

### BoD Reporting

Category	Compliance Audit Reporting
Frequency	· Annual
Content	· Corporate compliance audit result
2019 Agenda	· Compliance risk assessments · Approval of the amended compliance guidelines (proposal)

Performance Indicators

Category	Unit	2019
Compliance training sessions	Caseload	1
Compliance training participants	Headcount	300
Department in charge of compliance audit	No.	59
Legal consulting related to fair trade	Caseload	20
Legal consulting related to corruption prevention and financial sanction	Caseload	19
Other legal consulting	Caseload	356
Violations of improper solicitation and graft act	Caseload	0

Major Activities And Achievements

**Enhancement of Compliance Capabilities and Understanding**

HYUNDAI Electric provides regular compliance trainings for major decision-making positions such as executives, department heads, team managers, and new hires. We also appoint a compliance manager in each department and offer “Compliance Training at Your Doorstep” program where a lecturer visits a department with a greater risk of compliance violation and delivers training, thereby spreading the mindset of compliance management throughout all personnel. In addition, we publish compliance newsletters on the intranet on an ad-hoc basis and announce the opening of related trainings through compliance manager to educate personnel on compliance management in an effort to alleviate the risks of compliance violations that may arise during the course of business.

**Approval and Review Regarding Anti-Corruption and Financial Sanctions**

HYUNDAI Electric implements pre-approval system and conducts legal reviews based on the guideline on compliance with anti-corruption laws and regulations to cultivate a clean and fair management culture and prevent legal risks. In addition, we go through pre-approval system and legal reviews based on the guideline on compliance with laws and regulations on financial sanctions to effectively prevent related risks at home and abroad. We have introduced and implemented the anti-corruption guideline in 2018 and the financial sanctions guideline in 2019.

**Compliance Training for Fair Subcontracting and Work Process Enhancement**

HYUNDAI Electric offers a periodic and ad-hoc training on subcontracting compliance to the personnel who deal with contractors in their work capacity and improves the relevant work process, thereby addressing the associated risks in a proactive manner. We also distribute Compliance Program Handbook that employees (compliance manager) can refer to during their work.

**Fair Trade Compliance Handbook, Checklist, and Manual in Place**

We have developed and circulated the Fair Trade Compliance Handbook, Checklist, and Manual for the reference of our employees, to help our people avoid compliance-related risks that may occur in the course of business, providing ad hoc updates and amendments as necessary.

**Major Amendments**

In 2017: Subcontracting section of Compliance Program Handbook amended (Group-wide)  
 In 2019: Compliance Program Handbook published (HYUNDAI Electric)  
 In 2020: Abuse of market-dominant position & Unfair trade practices sections of Compliance Program Handbook amended (Group-wide)

**Monitoring Implementation of Fair Trade Compliance Program**

Since introducing Compliance Program in 2019, HYUNDAI Electric has proclaimed its willingness of compliance both internally and externally by posting the Declaration of Commitment to Compliance Program on our internal and official websites.

**Compliance Risk Assessments**

To accurately understand the content and level of compliance risk, HYUNDAI Electric conducts risk assessments for all departments and utilizes the results for system improvement, trainings, and inspections to enhance the effectiveness of compliance.

2020 Initiatives

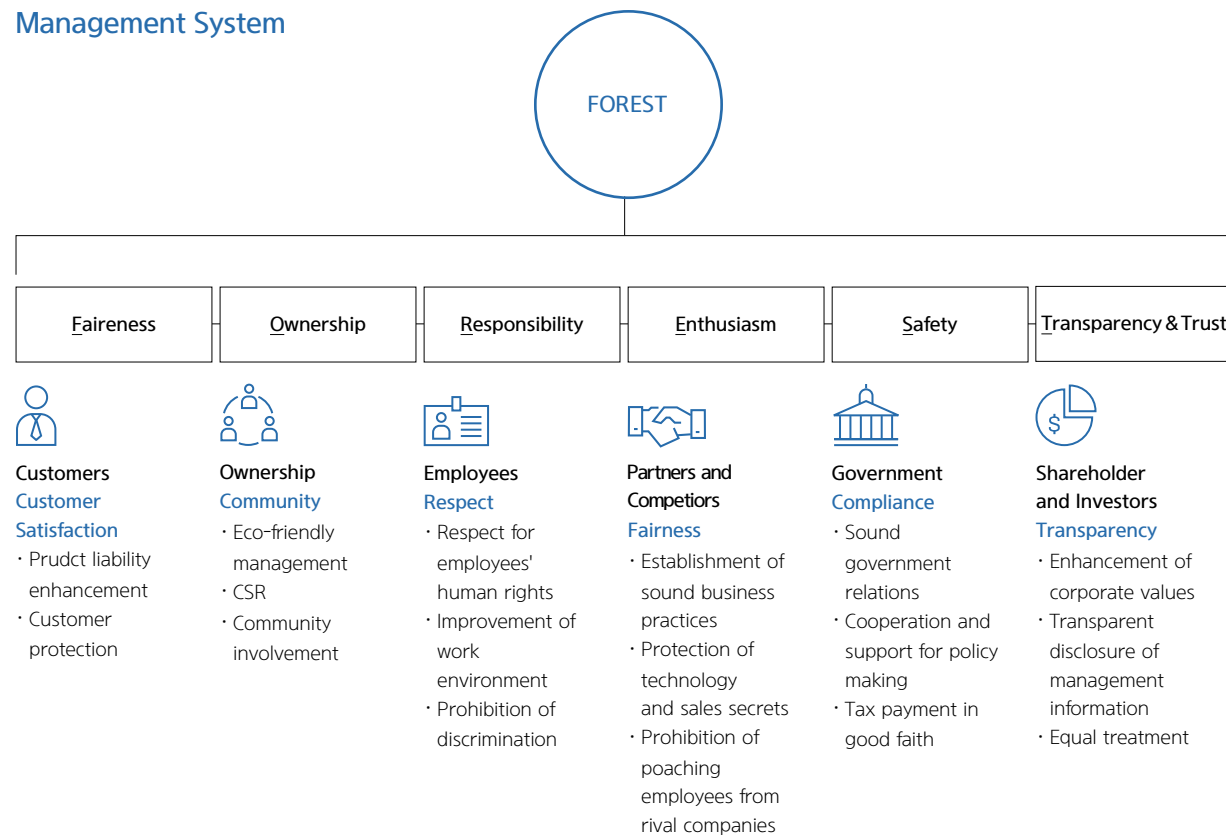
Category	Initiative
Improving compliance management system	<ul style="list-style-type: none"> <li>Appointing a compliance manager, establishing a solid compliance system through active trainings and activities</li> <li>Improving subcontracting procedures and providing more trainings</li> <li>Establishing and circulating checklists for subcontracting, fair trade, and anti-corruption</li> </ul>
Promoting compliance culture	<ul style="list-style-type: none"> <li>Monitoring business regulations and providing related trainings</li> <li>Discovering and spreading best compliance practices</li> </ul>



## Business Ethics

Like a forest that contributes to the co-existence of all surrounding lives, HYUNDAI Electric will foster an environment for all stakeholders' growth and development and pursue a sense of fairness, ownership, responsibility, enthusiasm, safety, transparency and trust. We will put forth our best effort to become a corporate that customers and partner companies want to trade with, one that investors want to invest in, one that employees want to work at, and one that fulfills its responsibility for the nation and communities.

## Management System



Charter of Ethics	Code of Conduct	Special Code of Conduct	Business Ethics Guidelines	Code of Conduct for Business Partners	Business Ethics Action Program	Training and Promotion
Declaration of HHI's management philosophies based on business ethics	Specific ethical standards in the Charter of Ethics by sectors	Standards for employees engaged in business functions, which require specific standards and stricter ethical obligation	Detailed job guidelines for the implementation of business ethics in the workplace	Ethical standards for shared growth with partners through transparency and fairness in business	Specific institution and process to develop a fair and transparent corporate culture	Efforts for active employee participation in ethics management and promotion of ethical corporate culture

## Governance of Business Ethics

Function/Position	Responsibility
CEO	Setting directions and plans of ethics management
Audit Committee	Evaluating audit performance and following up on corrective actions; ensuring the auditor's expertise and independence
Business Ethics Team	Operating ethical management systems; providing business ethics trainings and programs; inspecting ethics violations; monitoring and preventing ethics risks; monitoring business ethics practices constantly Management scope: HYUNDAI Electric

## Charter of Ethics

Since ethics regulations for procurement position were established in 1994, HHI Group has practiced and expanded its ethics program by amending business ethics regulations and providing an online ethics violation reporting platform and training courses. In October 2005, we declared our Charter of Ethics which proclaims our ethical management philosophy, and have worked to make it fundamental to the way we do business.

### Charter of Ethics of HHI Group

We strive to become a respected and trusted company that positively contributes to its customers, shareholders and society with the HYUNDAI Spirit. To achieve this goal, we hereby establish this Charter of Ethics, which defines our standards of conduct to follow in accomplishing faithfully our original role and social responsibilities as a corporate entity and we declare that we shall comply with this Charter of Ethics.

1. We shall be an ethical corporation that abides by all domestic and international laws and regulations through fair and transparent management practices.
2. We shall achieve customer satisfaction by meeting their needs and expectations.
3. We shall seek to maximize shareholders' value through fair and efficient management.
4. We shall work to fulfill our social responsibilities and duties as a member of local communities, and contribute to the development of our nation and society.
5. We shall work to create a transparent and clean corporate culture through fair competition and trading practices.
6. We shall aim to be a corporate with the highest quality human resources that offers equal opportunities to all our employees in a safe and comfortable working environment.

## Materialization of Business Ethics

HHI Group has enacted the Code of Conduct, an elaboration of the Charter of Ethics by each job, and Business Ethics Guidelines, detailed job guidelines for the implementation of business ethics in the workplace. We are also regularly making revisions to reflect changes of the environment such as related laws and regulations and social perception and enhance their effectiveness.

Employees			Partner Companies
Code of Conduct	Special Code of Conduct	Business Ethics Guidelines	Code of Conduct for Partner Companies
<ul style="list-style-type: none"> <li>· Enforced on October 4, 2005</li> <li>· 2nd revision on July 1, 2019</li> <li>· 3rd revision on April 1, 2020 (clause on human rights respect and protection added)</li> <li>· Criterion for action and evaluation</li> </ul>	<ul style="list-style-type: none"> <li>· Enforced on May 2, 2007</li> <li>· Additional duties of employees engaged in six jobs requiring higher integrity and morality (procurement, HR, sales, finance/accounting, engineering and IT)</li> </ul>	<ul style="list-style-type: none"> <li>· Enforced on January 1, 2002</li> <li>· 7th revision on December 1, 2019</li> <li>· Business process standards for understanding and practicing business ethics policies</li> </ul>	<ul style="list-style-type: none"> <li>· Enforced on October 4, 2005</li> <li>· 3rd revision on December 1, 2019</li> <li>· Duties applied to personnel of HHI Group's partner companies</li> </ul>

## Performance Indicators<sup>1</sup>

Category		Unit	2017	2018	2019		
Employees	Business ethics training	Classroom training	Promoted employees	Headcount	129	Not provided	2
			New hires (including experienced hires)	Headcount	9	67	45
			On-site training	Headcount	443	1	62
	Others	Online training	Headcount	31	163	108	
		Department-level training	Headcount	Not provided	Not provided	961	
		On-site hearing on business ethics	Headcount	154	20	271	
Partner Companies	On-site hearing on business ethics	Headcount	Not provided	12	34		

<sup>1</sup> Scope: All domestic business establishments

## Major Activities and Achievements

### Integrated Group Website

In July 2018, the Group's integrated business ethics website opened to introduce the Group's business ethics practices and raise the ethics awareness of employees.

The website provides a 'subcontractor hotline' through which partner companies can request consultation on subcontracting or unfair trades, a channel for filing complaints or reporting corruption such as accounting fraud, and a channel for ethics counseling. Once a report is filed, the reporter is updated on the progress and result of the case via email or SMS.

### Annual Business Ethics Confirmation

HHI Group's employees and its partner companies are required to submit an annual Business Ethics Confirmation, to pledge their commitment to understanding the relevant regulations and abiding by corporate policies and guidelines. The pledge requires compliance with ethics regulations and the anti-corruption law to avoid unfair trades, corruption, illegal solicitation and graft as prohibited by laws and regulations.

### Conflicts of Interest Reporting

When a possible conflict of interest is identified, the employee in question is obligated to report the issue in advance to prevent an unfair result and establish a transparent trade practice. All employees of HHI Group and its partner companies are obligated to submit this conflict-of-interest report every year.

### Ethics Violation Reporting and Whistle Blower Protection

Business Ethics Team receives reports on allegations of wrongdoing, which include illegally accepting gratuities or entertainment, obtaining unjust gains using their position or authority, and abusing authority. Reports can be submitted by phone, fax, email or post, or online. We aim to protect the whistleblower's identity and reward them in accordance with our reward guidelines.

### Business Ethics Self-Monitoring

Annually the employees of HYUNDAI Electric are provided a survey-format checklist to find areas to be improved and enhance the understanding of business ethics through self-monitoring and evaluation.

### On-site Hearings and Assessment of Business Ethics

HYUNDAI Electric holds field sessions to hear from employees and partner companies and diagnose and improve the level of ethics compliance. To this end, we assess how business ethics are implemented in the field and conduct additional reviews on items requiring further improvement.

### Business Ethics Training and Promotion

HYUNDAI Electric annually runs classroom training courses and online courses on business ethics. The materials are presented in formats such as animated movies, etc. to raise the understanding of employees and encourage their commitment. The trainings provide a case study of various unethical issues and a Q&A session designed to induce a sense of sympathy. To embed business ethics throughout the Company, we mandate business ethics courses to all of the new hires and managers. Such trainings help new hires understand HHI Group's Charter of Ethics and related policy while helping managers make all their business decisions based on ethical judgment. Moreover, we work to introduce our ethical management system at a council with our partner companies. Ethics Management Team also works to spread ethics management over partner companies by visiting them to provide related trainings.

### Clean Notice System

Prior to major national holidays every year, we send out letters to our partner companies asking not to provide any gift to our employees. We advise our partner companies to report any bribery demands, including attempts, to our Business Ethics Team. When an employee unavoidably receives gifts from stakeholders, we guide them to return the gifts via our designated courier or donate to charities.

### Support for ethics management in partner companies

HYUNDAI Electric supports partner companies in their establishment of a business ethics culture. We have implemented the Code of Conduct for Partner Companies since 2005 to embed a clean and transparent business practice. The Code of Conduct for Partner Companies stipulates obligations such as transparent and fair business practices with partner companies and compliance with related laws and regulations, placing a ban on giving monetary benefits, graft and treatment to employees. Other supports to partner companies include support for the establishment of business ethics regulations and practice programs, provision of group trainings for the introduction of ethics management, and provision of promotional materials.

## 2020 Initiatives

Category	Responsibility
Classroom training	· Improving training satisfaction level by catering to the specific needs and assigning full-time training coordinator personnel
Promotion activities	· Creating new contents and using video clips for promoting ethics management
Amendment of code of conduct and Establishment of human rights hotline	· Incorporating a new clause on human rights respect and protection to the Code of Conduct for promoting human rights in business · Providing a reporting hotline in the Group's integrated ethics management website
Identification of ethical risks and preventive actions within department	

## Greater Management Transparency

HYUNDAI Electric is committed to building an advanced corporate governance structure that ensures the Board of Directors' right to an independent and transparent decision making. Equipped with balances and checks by BoD committees such as Audit Committee, our governance structure will enhance the value of stakeholders such as the corporate itself and shareholders.

### BoD Operation and Composition

To ensure a sound corporate governance and transparent management, we have the Articles of Incorporation in place stipulating that more than half of BoD members must be outside directors. There are three subcommittees: Outside Director Recommendation Committee, Audit Committee, and Internal Trade Committee. The BoD has the authority to vote on matters mandated from the shareholders' meeting and matters related to basic principles of corporate operation. The BoD also has the rights to appoint CEO and Chairman of the Board as well as the responsibility to oversee the duties of executives.

Category	Name	Position	Gender	Current Occupation	Committee (where listed as a member)	Initial Appointment Date
Internal Director	Cho Seok	BoD Chairman, CEO & President	Male	CEO of HYUNDAI Electric	Outside Director Recommendation Committee	March 2020
	Keum Seok-ho	Director	Male	Head of HR Support Division, HHI Holdings	Internal Trade Committee	March 2018
Outside Director	Ryu Seung-woo	Chair of Audit Committee	Male	Advisor at Samil PwC	Internal Trade Committee, Outside Director Recommendation Committee, Audit Committee	March 2019
	Lee Seok-hyung	Member of Audit Committee	Male	Attorney at Law Firm SanGyung (Executive advisor)	Internal Trade Committee, Outside Director Recommendation Committee, Audit Committee	March 2019
	Song Back-hoon	Member of Audit Committee	Male	Professor of International Trade at Dongguk University	Internal Trade Committee, Outside Director Recommendation Committee, Audit Committee	March 2020

(As of March 2020)

### BoD Subcommittees

Committee	Objective and Authority
Audit Committee	· Oversight of executives' implementation of duties, access to material and information required for audit
Outside Director Recommendation Committee	· Recommendation of outside director candidates qualified for the achievement of business objectives
Internal Trade Committee	· Establishment of basic policies on internal transactions, inspection of counterparty selection standards and practices

### BoD Meetings

In 2019, HYUNDAI Electric held a total of ten BoD meetings, where 33 agenda items were processed. Attendance rate of outside directors is 93.3% (exclusive of interim resignations).

Date	Agenda Items Reported and Proposed
Jan. 30, 2019	· 2 items including the approval of the 2nd financial statements
Feb. 28, 2019	· 4 items including the convening of the 2nd General Shareholders' Meeting and approval of meeting purposes
Mar. 25, 2019	· 3 items including the appointment of BoD chairman and the decision of the order of succession (acting for Chairman) in case of absence
Apr. 29, 2019	· 4 items including the approval of amendments to compliance guidelines
Jun. 20, 2019	· The approval of the transfer of ship automation business
Jul. 24, 2019	· 5 items including the re-approval of the transfer of ship automation business
Sep. 16, 2019	· 2 items including the resolution of paid-in capital increase
Oct. 24, 2019	· The reporting of sales performance of 3Q 2019
Nov. 29, 2019	· 5 items including the approval of sale of stake in overseas entity (Bulgarian entity)
Dec.13, 2019	· 6 items including the additional approval of 2020 ceiling of transaction with stakeholders including major shareholders

### Appointment and Assessment of Outside Directors

We comply with the Commercial Act's requirements for outside director appointment, and our outside directors are not a related party to the major shareholders, executives or affiliated companies. All BoD members comply with the Commercial Act, the Monopoly Regulation and Fair Trade Act, etc. to prevent a conflict of interests between directors and company including regulations on transaction between directors and company, prohibition of appropriation of company's opportunities, and large-scale internal trading and disclosure. BoD members consist of professionals with expertise in each job function and we allow no limits based on age, gender, educational or regional backgrounds in appointing or evaluating BoD members. We monitor outside directors' fulfillment of duties by tracking their meeting attendance rate and agreement/disagreement ratio, etc., which are disclosed in our integrated report. We plan to review ways to assess their activities as long as such assessment does not undermine their independence.

### Enhancement of BoD's Expertise

HYUNDAI Electric regularly provides various training sessions to outside directors to enhance their expertise, and in doing so, we discuss with Group entities for training efficiency. Training topics are related to the role of outside directors including legal amendments such as the amendment to the Act on External Audit of Stock Companies, internal accounting management system, and requirements for Audit Committee, etc. To provide more professional trainings, we invite lecturers from external professional bodies (accounting firms, etc.). We also offer an opportunity to discuss major topics in today's business environment such as changes in the era of the 4th industrial revolution and digital-based business innovations, thereby giving them substantial insights from a business perspective.

### Remuneration of Bod Members

The ceiling of the remuneration of BoD members is decided by the resolution of the Annual General Shareholders' Meeting to ensure transparency and justification. The 2020 annual remuneration ceiling for directors approved at the 2019 General Shareholders' Meeting is KRW 2.6 billion.

### Shareholders and Dividend Policy

The number of HYUNDAI Electric's outstanding shares as of end of 2019 is 36,047,135 of which 37.22% is held by the largest shareholder, HHI Holdings.

Category	Name	No. of Shares	Proportion (%)
Shareholders with over 5%	HHI Holdings	13,417,067	37.22
	Employee Stock Ownership Association	3,122,869	8.66
	Minority shareholders	16,406,794	45.51

(As of December 31, 2019)

## Pursuing Safe and Environmentally Friendly Business Practices

HYUNDAI Electric strives to reduce the risk of workplace accidents, improve worker safety and health, and further minimize the environmental impact of its business operations

Safety Management	p.57
Health Management	p.61
Environmental Management	p.64

## Safety Management

Amendments to the Occupational Safety and Health Act took effect in January 2020 to strengthen the prevention of industrial accidents. In response to this, HYUNDAI Electric is doing its best to build a culture of prevention for safety in worksites by removing hazards and reducing risk factors. Management and employees are making concerted efforts to practice safety measures based on respect for human dignity and principle of “safety first.” The collective bargaining agreement also includes clauses concerning safety and health of workers.

### Management System

HYUNDAI Electric is operating the safety management system to identify internal and external safety issues based on ISO 45001 and mitigate risks in accordance with stakeholders' requirements. The company created a database covering a comprehensive range from accident cases to safety training through the HiSEs (HYUNDAI integrated health, Safety and Environment system). It is conducting efficient safety management based on accumulated data. The advanced HiSE allows the company to establish safety policies each year based on statistics and deliver achievements through effective management system and related index management.

### Safety Policy

- Building Safety Culture that Conforms to Basics and Principles of Safety**
- Strengthening safety activities to remove hazards and reduce risks factors
  - Establishing a culture of prevention to raise safety awareness

### Safety Management Governance

Category	Description
Management system	· HiSEs (ISO 45001)
Decision-making body (meeting frequency)	· Industrial Health & Safety Committee (6 representatives each from the management and the labor union) (quarterly) · Partner Safety and Health Council (monthly)
Executive in charge	· CEO
Dedicated organization	· Safety & Environment Team (directly controlled by CEO): Safety control tower for domestic/overseas entities with the authority to investigate any safety issue and accident · Safety promoter at each manufacturing department, safety manager separately assigned at partner companies
Company-wide safety performance indicator	· Accident rate (target achievement)

Performance Indicators<sup>1</sup>

Indicator	Unit	2017	2018	2019	2020 (target)
Accident rate	%	0.528	0.311	0.188	0.160
Direct operations	%	0.552	0.288	0.206	N/A
Partner companies	%	0.448	0.395	0.130	N/A
Fatalities	Headcount	0	0	0	0
Direct operations	Headcount	0	0	0	0
Partner companies	Headcount	0	0	0	0
Frequency rate of accidents (per 1 million hours worked) <sup>2</sup>	-	2.02	1.62	0.85	0.74
Lost Time Injury Frequency Rate (LTIFR, inclusive of non-accidental injuries, per 1 million hours worked) <sup>2,3</sup>	-	2.53	2.06	1.13	1.03
Spot rewards cases for best safety practices	Casecount	1,683	2,505	2,370	2,880
Reward amount	KRW 1,000	8,415	12,525	11,850	14,400
Safety Academy attendees	Headcount	35	24	33	10
Emergency drills	Casecount	3	5	5	6
Safety training for partner companies	Casecount	55	61	70	50

<sup>1</sup> Scope: All domestic business establishments

<sup>2</sup> Inclusive of partner companies

<sup>3</sup> LTIFR: Industrial accidents + minor accidents not reported as industrial accidents + occupational diseases (exclusive of hearing loss)

Safety Management Achievements

Golden Rules and Safety Academy

We have established a must set of safety rules that all employees, including those from in-house partner companies, should comply with on site so that Group-wide safety culture focused on basic principles can take root in the company. The Safety Golden Rules, which aim to establish basic discipline and prevent accidents, have developed into our own safety culture that conforms to basics and principles.

Safety Golden Rules	
1. No smartphone and earphone (on move/work)	7. Fasten the seatbelt when working in a high place
2. No smoking (on move/work)	8. Designate a restricted area for test runs
3. No faster than 30km/h (forklift: 8km/h)	9. Assign personnel to guide unloading/transport with forklifts
4. No entrance under hoisting unit	10. Comply with crane rigging procedures
5. No arbitrary removal of safety equipment on machinery/equipment	
6. While in electricity work, observance of 'Lock Out Tag Out' rules	

Enhancing On-site Inspection

All levels of management from the CEO to the first-level supervisor frequently conduct on-site safety inspections to identify and eradicate risk factors. For tasks with high risk of accidents such as fall, electric shock and cramped space, we focus on ensuring close safety management by supervisors to remove links in a major accident chain.

Spot Rewards for Best Safety Practices

Employees with excellent safety performance are rewarded on the spot in order to raise safety awareness. The system has helped encourage voluntary safety activities and build an autonomous safety culture.

Safety Training

Systematic safety training is offered to both technicians working in the office and engineers working on site. In 2019, the Safety & Environment Team, with the help of an external training institution, provided compulsory safety courses twice a year to manufacturing and support department heads, team leaders, senior foremen, heads of partner companies, and their leaders of offices and teams. Supervisors are required to receive up to 16 hours of safety training by law.

Safety Management at Partner Companies

HYUNDAI Electric requires in-house partner companies to appoint a safety manager in order to help them build autonomous safety culture and strengthen safety management capabilities. In accordance with the amended Occupational Safety and Health Act, we focus on improving safety for both our and business partners' employees by supporting training of new recruits and establishment of safety management system.

Disaster and Emergency Responses

HYUNDAI Electric adopted a company-wide disaster prevention manual in order to protect employees and company assets from natural disasters such as typhoons and earthquakes. Divisional emergency response teams organized under the Corporate Disaster Prevention and Response Head Office are mobilized to promptly respond to disasters upon occurrence, according to the level of crisis. Periodic inspection and scenario-based drills will be conducted to preemptively prepare against emergencies that can occur at and around business sites. In 2019, a fire drill was conducted without scenarios to ensure an imminent and systematic response to an actual fire or other emergency. The drill set the fire spot at our main building and focused on practicing an active and prompt response to a fire in accordance with assigned roles and initial response manual. We also plan to conduct a non-scenario drill at the plant where various types of emergency could occur to train employees on how to respond to an emergency preemptively and efficiently.

## 2020 Initiatives

Goal	Initiatives
Zero major accidents & Accident rate of 0.160% (5 cases) or below	<ul style="list-style-type: none"> <li>· Conducting inspection of high-risk tasks and areas to ensure compliance with related laws and regulations as well as daily safety check</li> <li>· Enhancing efficiency in safety management for unsafe conditions (operating conditions/working environment/facilities) and securing capabilities for preemptive action on high-risk situations</li> </ul>

## Health Management

HYUNDAI Electric provides various programs for disease prevention and health management for employees. The company supports regular medical checkups and comprehensive examination each year along with follow-up care for systematic health management. It is planning and operating health promotion programs to raise employees' interest and participation in health management. The chemical substance management system is also under consideration to minimize employees' exposure to hazardous chemical substances.

### Health Policy

#### Creating Healthy and Comfortable Working Environment

- Continuing efforts to improve working environment
- Revitalizing disease prevention and health promotion programs

### Health Management Governance

Category	Description
Management system	· HiSEs (ISO 45001)
Decision-making body (meeting frequency)	· Industrial Health & Safety Committee (6 representatives each from the management and the labor union) (quarterly) · Partner Safety and Health Council (monthly)
Executive in charge	· CEO
Dedicated organization	· Safety & Environment Team (directly controlled by CEO)
Company-wide health performance indicator	· Occupational Illness Frequency Rate (OIFR)

### Performance Indicators

Category	Unit	2017	2018	2019	Note
Medical service users	Headcount	2,843	3,954	3,635	Visits to oriental medical clinic and health promotion center
Smoking cessation clinic participants	Headcount	26	21	16	Linked to community health center
Obesity program participants	Headcount	34	16	73	Check on body fat reduction through exercise and improvement in eating habits
Obesity program success rate	%	44.1	50.0	34.2	Participants who succeeded in reducing body fat percentage/total participants x100
OIFR	%	0.2	1.0	-	Employees with suspected occupational disease/total working hours x 1,000,000



## Key Support and Facilities

### Hearing Protection Fit Test for Employees at High Risk of Hearing Loss

We selected 25 employees at high risk of hearing loss based on medical checkup results and conducted the hearing protection fit test to prevent progression from C1 (workers requiring observation) to D1 (workers with suspected disease). We focus on teaching how to use hearing protection devices correctly and raising awareness of the importance of correct usage based on actual figures (change in noise reduction rate after education, etc.).

### Medical Examination and Follow-Up Care

We support regular medical checkups and special examination on exposure to hazardous factors every year to measure the health status of employees. Comprehensive medical testing is also offered to long-serving and senior employees aged 40 or older. Based on checkup results, employees are provided with follow-up care (counseling) such as adjustment of working hours to avoid health problems caused by excessive workload.

### Health Care Center

We run health care centers to help employees recover quickly from injuries and other health problems by providing high-quality medical care, including treatments (drug administration, etc.), health counseling and physical therapy.

### Health Promotion Centers and Oriental Medical Clinic

There are health promotion centers at worksites, which are operated under shared service arrangements with HHI. The centers provide medical services including physical therapy and rehabilitation through attending occupational health physicians. Oriental medical service is also offered to help the treatment of musculoskeletal diseases.

### Support for Other Medical Examination and Endemic Disease Prevention

We request medical examination at medical institutions for employees before/after assignment, new recruits, expatriates and others who need overseas medical checkups. We also support vaccination against yellow fever and malaria before overseas business trips and seasonal influenza vaccination for all employees each year through designated institutions.

### Support for Outside Rehabilitation

In order to help employees recover from an industrial accident in a fast and healthy manner, we provide various outside rehabilitation programs in connection with Hanmaum Center.

### Health Promotion Programs

We plan and operate separate health promotion programs at Ulsan and Seonam plants. Obesity programs and smoking cessation clinic are popular among employees. Employees are also encouraged to use stairs with rewards for frequent users and receive health education materials each month.

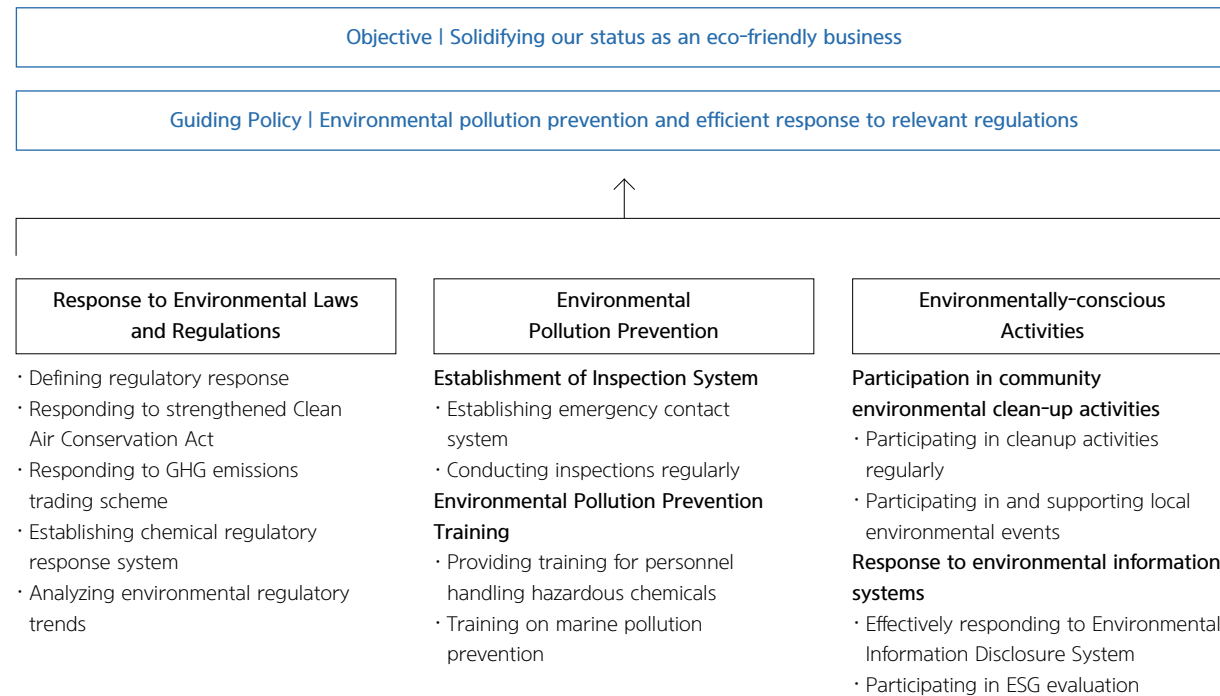
## 2020 Initiatives

Goal	Initiatives
Containing obesity rate at or below 40%	<ul style="list-style-type: none"> <li>· Blocking the entry of hazardous substances through the introduction of chemical substance management system</li> <li>· Preventing hearing problems by using hearing protection fit tester</li> <li>· Encouraging the use of mobile walking program (WalkOn) with rewards</li> <li>· Creating and sharing health education materials every month</li> <li>· Preventing obesity through exercise, diet counseling and body fat measurement</li> </ul>

## Environmental Management

HYUNDAI Electric has managed and improved air pollutant emitting facilities under its own standards stricter than legal requirements to reduce fine dust and GHG emissions in accordance with the blue sky policy of the Ministry of Environment. The company, which is an integrated energy solution provider, has built a smart factory environment for its transformer plant and plans to reduce GHG emissions by 1.7% from the 2019 levels in 2020 through efficient use of electric power.

### Management System



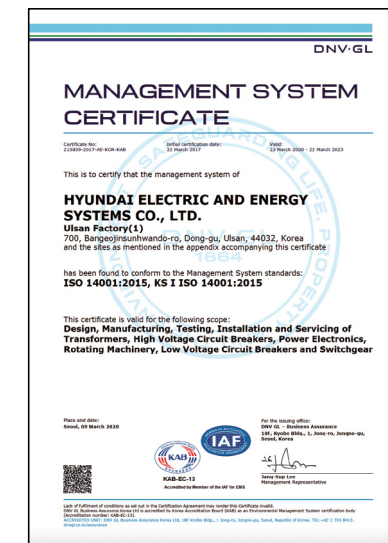
### Environmental Policy

- Continued Pursuit of Environmentally Friendly Management System**
- Contributing to environmental conservation by producing environmentally friendly products
  - Conducting activities to prevent environmental pollution and participating in external environment protection activities

### Environmental Management Governance

Category	Description
Management system	· Accredited to international certification for environmental management system (ISO 14001:2015)
Executive in charge	· Directly controlled by CEO
Decision-making body (meeting frequency)	· Whenever necessary
Dedicated organization	· Safety & Environment Team
Company-wide safety performance indicator	· No. of violations of environmental laws/regulations

### Acquisition of Environmental Management System Certification



## Energy Management and Response to Climate Change

### Performance indicators<sup>1</sup>

Category	Unit	2017	2018	2019	2020 (target)
Direct energy (fuel)	TJ	137	166	154	685 (1.7% reduction)
Indirect energy (electricity) consumption	TJ	621	593	545	
Total energy consumption	TJ	756	757	697	
Energy savings	TJ	-	-	0.453	N/A
Energy consumption per revenue <sup>2</sup>	TJ/revenue (KRW 100M)	0.052	0.044	0.045	
Direct (Scope 1) emissions	tCO <sub>2</sub> e	7,226	8,725	8,112	33,994 (1.7% reduction)
Indirect (Scope 2) emissions	tCO <sub>2</sub> e	30,165	28,820	26,470	
Total GHG emissions	tCO <sub>2</sub> e	37,389	37,543	34,582	
GHG emission reduction	tCO <sub>2</sub> e	-	-	58	N/A
GHG emissions per revenue <sup>2</sup>	tCO <sub>2</sub> e/revenue (KRW 100M)	2.579	2.167	2.220	

<sup>1</sup> Scope: All domestic business establishments | <sup>2</sup> Standalone basis

### Energy Management System

HYUNDAI Electric's business establishments are under the control of HHI Group's energy management system accredited to ISO 50001. The company has recently introduced the FEMS to optimize energy usage and is encouraging all employees to participate in energy-saving activities.

### GHG Management System

HYUNDAI Electric monitors all GHG-emitting facilities operated at Ulsan/Seonam plants and Yongin Research Center through the HHI Greenhouse Gas Management System (HGMS) to control the emissions of six main GHGs. Each facility's energy use is entered into the system by the personnel in charge and GHG emissions are calculated based on internally-verified data. The calculations from the system are subject to regular stage-by-stage verification from a third party to improve reliability.

### Climate Change Risks and Opportunities

HYUNDAI Electric has three business establishments and was granted the GHG emission quota for its Ulsan plant in April 2017. The quota was canceled for Seonam plant and Yongin Research Center due to a small amount of emissions. The company is making efforts to abide by the quota specified under the domestic emissions trading scheme and secure excess allowances by investing into energy-saving facilities and developing energy efficient equipment.

### Energy and GHG Management

We have recently built a smart factory environment for our transformer plant to ensure efficient energy management through power and heating/cooling

## Worksites Striving to Minimize Environmental Impact

equipment control. We are also replacing aging equipment with energy efficient equipment through continued investments. Each department establishes its own energy-saving plan and conducts related activities, including power saving during off-hours.

### Renewable Energy Generation Facilities

Facility	Capacity	Energy	Output
Solar photovoltaic (PV)	500kW	Electricity	548MWh

### Performance Indicators<sup>1</sup>

Category	Unit	2018	2019	
Air pollutant	Dust	Ton	8	3,5262
	NOx	Ton	N/A	2,778
Water usage and wastewater	Water usage	Ton	291,679	281,095
	Water usage per revenue <sup>2</sup>	Ton/revenue (KRW 100M)	16.3	18.1
Waste	Wastewater	Ton	456	383
	General waste (reclamation)	Ton	27	20
	General waste (incineration)	Ton	1,217	1,018
	Designated waste (reclamation)	Ton	51	14
	Designated waste (incineration)	Ton	129	109
	Recycling	%	67	67
Violation of environmental laws/regulations	Caseload	0	0	

<sup>1</sup> Scope: All domestic business establishments

<sup>2</sup> Increase in dust and NOx emissions in 2019 attributable to capacity expansion of industrial process boilers

<sup>3</sup> Standalone basis

※ Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Suspended Solids (SS) are treated by outsourced vendors

### Reduction of Raw Material Consumption

We are cutting down on raw material consumption and parts used in products through the adoption of smart motor management system and component integration (molds). We focus on minimizing the use of raw materials by improving processes in the design stage, reducing welding points and reusing steel sheets through design standardization.

### Air Pollutant Control (Managed Through HiSEs)

We have identified facilities at our worksites that emit fine dust and made a phased investment in pollutant reduction facilities (low NOx burners) to limit the generation of fine dust in high concentrations and mitigate the related impact. In accordance with the strengthened Clean Air Conservation Act, we check and control newly-designated hazardous substances for air quality at 50% of the legal threshold.

**Wastewater and Water Pollutant Control (Managed Through HiSEs)**

Wastewater from processes is collected in water tanks and treated by outsourced vendors. We are also preventing wastewater leak through self inspection focused on sources. We previously collected water discharged from rotating machine test laboratories for treatment by outsourced vendors. From 2019, however, we started to reuse test water through investments in laboratories to reduce wastewater from worksites.

**Waste Reduction**

The transformer and rotating machine manufacturing departments have installed filters and filtration equipment to reuse oil, which was previously disposed of after tests, by removing moisture and impurities in oil. The disposed insulating oil is stored in outdoor storage tanks to be recycled by specialized contractors. Paper and vinyl packaging waste from manufacturing processes is also collected separately for recycling.

**Chemical Substance Management**

We plan to develop the chemicals purchase system by the first half of 2020 to prevent the use of hazardous chemical substances through hazard assessment in the purchasing process. Strict chemicals management from purchasing to disposal should help prevent related accidents. We measure the amount of chemicals discharged from worksites annually and conduct a survey on chemical substances biennially. Imported chemicals are checked on a permanent basis.

**On-site due Diligence/Regular Inspection**

We frequently check major environmental facilities at business establishments and communicate with their operators to identify areas of improvement and promptly respond to issues. Each odor-causing facility is monitored based on quantitative data collected through odor meters. We have recently improved odor activity value for facilities with high odor concentration to create comfortable working environment.

HYUNDAI Electric developed technologies for insulation and cooling design enabling change of insulating oil of transformers, the company's key product, from mineral oil to vegetable oil, thereby reducing soil and water pollution. The company is also contributing to preventing global warming with Its Eco Gas Insulated Switchgear (EGIS) which does not use any GHG (SF<sub>6</sub>) by applying environmentally friendly insulation medium, dry air. It is also developing technologies to replace SF<sub>6</sub> with NOVEC gas used for insulation of gas insulated switchgear.

**Environmentally Friendly R&D Activities**

**Environmental Investment Activities and Achievements**

**Investment in Environmental Facilities**

HYUNDAI Electric continues to invest in improving facilities to minimize environmental pollution. In 2019, the company focused on resolving issues found in the inspection such as the repair of aging dust collectors and wastewater collection tanks. We also plan to measure air pollutants to check if the emissions comply with the strengthened standards by placing check holes at facilities emitting pollutants but exempted from installation of prevention equipment.

Unit	Investment Plan	Actual Investment	Details of Investment
KRW 100M	0.5	0.5	Repair of pollution prevention facilities and wastewater collection tanks

**Environmental Management Training**

On October 30, 2019, HYUNDAI Electric conducted a mock exercise to strengthen response capabilities against earthquake-sparked chemical accidents. The drill simulated a leakage of insulating oil from the storage tank located in the west of the 300kV transformer. It focused on preventing accidents caused by secondary fire risk by blocking utility lines at risk, taking important items and dangerous substances out of the site, and having the industrial fire brigade remove leaked oil with oil absorbent pads. The drill was joined by about 100 employees of the transformer manufacturing unit.

**Environmental Cleanup Activities**

HYUNDAI Electric participated in stream cleaning activities led by Ulsan Metropolitan City and Dong-gu Office to help conserve local environment. The company helped raise awareness of the value of water and importance of water management through purification activities around the Gulhwa wastewater treatment plant and Jujeon Stream and removal of harmful plants. At the Seonam plant, we focus on cleaning roads around worksites by removing garbage and weeds to help reduce fine dust in the national industrial complex.

**2020 Initiatives**

Goal	Initiatives
Reducing GHG emissions	<ul style="list-style-type: none"> <li>Conducting power saving activities</li> <li>Carrying out energy saving activities</li> </ul>

## Promoting Strong Labor-Management Relations Built on Mutual Respect and Trust

HYUNDAI Electric establishes a high-trust corporate culture through continuous communication. It aims to build a cooperative labor-management relationship based on respect for all stakeholders, including employees.

Human Rights Management	p.71
Labor-Management Relations	p.73
Learning & Development	p.76
Evaluation & Compensation	p.79
Employees' Quality of Life	p.81

## Human Rights Management

HYUNDAI Electric respects the dignity and human rights of all stakeholders in direct and indirect relationships and aims to implement human rights management based on such efforts.

### Management System

We have developed a roadmap on human rights management to identify and actively manage major human rights issues that could have the most serious and negative impact in 2020, considering business operations and relationships. We first established Group-wide human rights protection policy and designated a department to handle related tasks. The Code of Conduct has been revised to specify the direction of human rights protection policies. In particular, we have secured the independence of remedial procedures for human rights violations by separating the department in charge of such procedures from the department that makes decisions and takes action for human rights management. In 2021, we plan to provide company-wide human rights trainings and continue to enhance the grievance handling process and remedial measures, and in the mid/long-term, we aim to conduct an assessment of human rights practices.

### Policies and Progress

#### Respect and Protection of Human Rights (Revised Code of Conduct)

Category	Description
Chapter 8. Respect and Protection of Human Rights	<ul style="list-style-type: none"> <li>· <b>Respect for Human Rights</b>   Company and employees shall respect the dignity and human rights of its members as well as its suppliers, business partners, and all the interested parties in the community, and shall practice human rights management based on this principle.</li> <li>· <b>Duties to Protect and Respect the Human Rights</b>   We set up strategies and policies of human rights management in order to respect the human rights of all the interested parties and to prevent any infringement, and share this with all the relevant parties. In particular, we try to protect the general principles of human rights including the following cases.</li> <li>· <b>Human Rights Due Diligence</b>   We take appropriate measures to establish the strategies and policies of human rights management including but not limited to the following. We evaluate the effect and risk on the human rights.</li> </ul>

※ Please visit [https://ethics.hhigroup.kr/html/EthicsCode/sub02\\_03.html#e01-07](https://ethics.hhigroup.kr/html/EthicsCode/sub02_03.html#e01-07) for more details

Human Rights Management Roadmap



※ Three-phase roadmap for each area

Grievance Handling Process

HYUNDAI Electric receives grievances from employees through various channels to remedy any violation of human rights. If the risk of violation is identified, the company pursues improvement in related areas to protect employees' human rights. In 2019, there was no case of discrimination based on nationality, age, gender, academic background, etc. reported through three channels including the employee representative body.

Channel	Issue	Case Settlement Rate (cases settled/filed)
Employee representative body	Wage/benefits, institution/system, organizational culture, work hours, infrastructure, environmental safety, etc.	100% (58/58)
Intranet	HR/compensation/education, general affairs/welfare, business, safety-health, IT, etc.	100% (7/7)
Hotline	Workplace bullying, etc.	No case
Offline	Grievance	Grievances reported through dialogues with the management at each department or personal counseling are not tallied as they are immediately processed upon reporting or delivered to the department in charge.

Labor-Management Relations

HYUNDAI Electric strives to establish sound organizational culture and advanced labor-management relations rooted in related laws and regulations. We understand labor union and labor-management council are important partners to the management and endeavor to promote cooperative growth between the labor and the management based on mutual respect and trust.

Collective Bargaining and Labor-Management Council Meetings

For better working conditions, we renew collective bargaining agreements biennially and have wage negotiations annually. Labor-Management Council Meetings are also held on a quarterly basis to discuss how to improve employees' working conditions and welfare. As of March 2020, the labor and management are currently in collective bargaining negotiations for 2019, focusing on how to overcome the management crisis of 2019 in 2020. The labor union shares management's belief that the collective bargaining should be completed through dialog and mutual understanding and is limiting the strike to union leaders to prevent any disruption to production. HYUNDAI Electric will do its best to conclude the negotiations as soon as possible so that the labor and management can work together to ride out the crisis.

Performance Indicators<sup>1</sup>

Category	Unit	2017	2018	2019
Rate of employees eligible or collective bargaining	%	58.5	52.4	46.1
Employees eligible for labor union membership	Headcount	1,659	1,325	1,066
Union members	Headcount	1,551	1,256	990
Union membership rate	%	93.5	94.8	92.9
Labor-management council sessions <sup>2</sup>	Caseload	-	4	4
Proposals submitted to council <sup>2</sup>	Caseload	-	33	40
Management status briefing sessions	Caseload	1	1	5
Labor-management relations training sessions	Caseload	2	2	2
Training participants	Headcount	150	135	74

<sup>1</sup> Scope: All domestic business establishments

<sup>2</sup> No council meeting in 2017 as HYUNDAI Electric was founded in April 2017 and the council was established in the second half of the year

## Internal Communication Activities

### Management Status Briefing

HYUNDAI Electric holds regular management status briefings for employees and labor union to build a consensus on the need to overcome the crisis and improve competitiveness as well as to foster an ownership mentality. Under the collective bargaining agreement, the company is obliged to inform the labor union of major management changes with different deadlines by case. For example, it is required to notify the union members of any partial or complete spin-off, transfer and merger of the business at least 40 days before such changes take effect. We held briefings five times in 2019 and plan to share the current management status with employees more frequently and strengthen their commitment to achieving business goals going forward.

### Dialogue with the Management

HYUNDAI Electric organizes meetings between employees and executives to establish a healthy corporate culture through effective internal communication. The CEO and heads of Divisions and Departments participate in the meetings to explain corporate policies and direction, while employees are given the opportunity to suggest ideas for further development of the company.

### Publication of Newsletters

HHI Group publishes newsletters on a regular basis to deliver company news and employees' stories. HYUNDAI Electric also shares major business issues and research results on online bulletin boards.

## Labor-Management Training

### Labor-Management Relations Training

We provide labor-management relations trainings to help employees understand the importance of sound labor-management relations and reinforce communicative capabilities. The trainings also focus on promoting communication and strengthening the leadership of managers to establish healthy corporate culture, which is required to establish win-win labor-management relations. Seven courses are offered, including various internal programs, organizational culture camps, and external training programs.

### Organizational Vitality Education

We operate organizational vitality education for senior foremen who control worksites. In 2019, a total of 69 senior foremen participated in the education to strengthen their leadership capabilities. A mentoring program is also provided for employees to help them enhance their job competencies, adapt to organizational culture, and maintain a work-life balance. The one-on-one mentor and mentee relationships between junior and senior employees contribute to developing job skills of junior staff and promoting a voluntary cooperative culture.

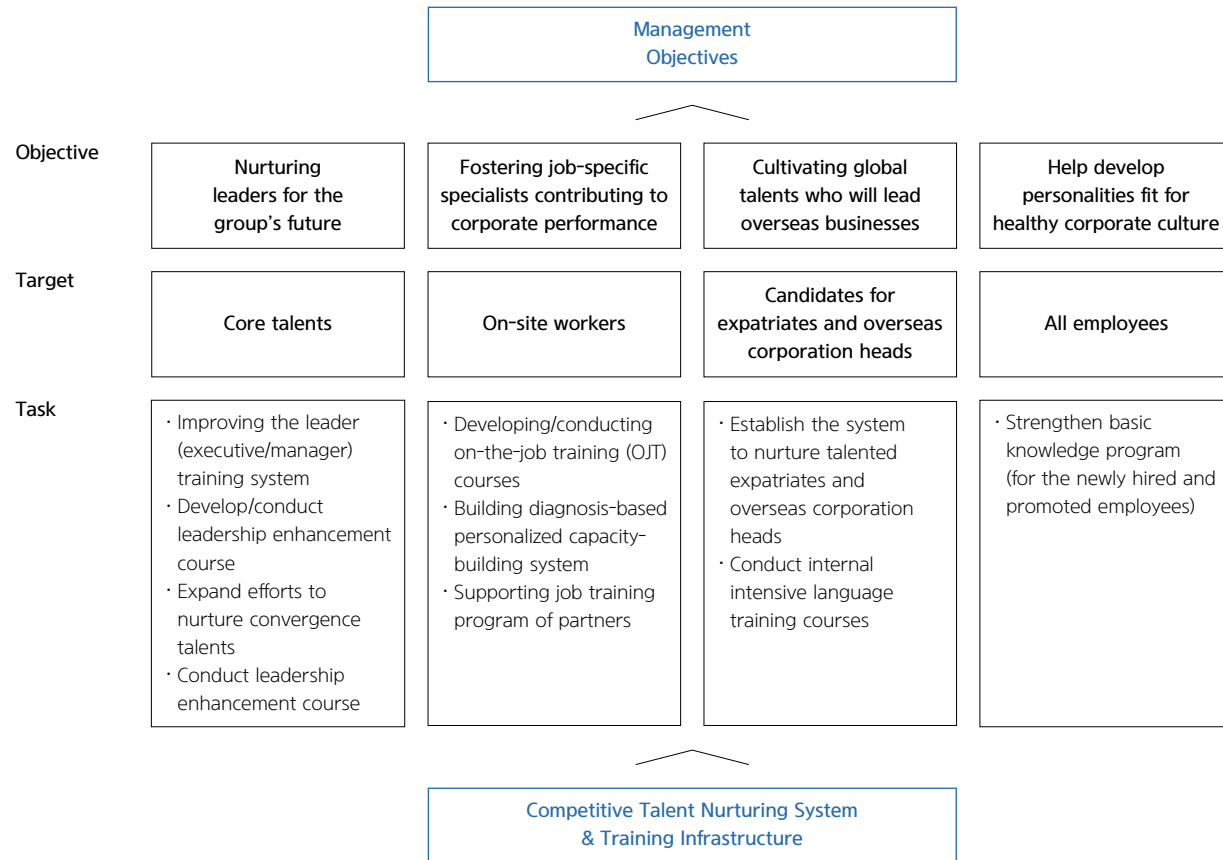
## 2020 Initiatives

- Instilling a sense of shared destiny between labor and management through mutual understanding and cooperation
- Establishing an organizational culture of communication and participation, growing business and happy workplace

## Learning & Development

HYUNDAI Electric endeavors to secure business competitiveness and success through employee competency enhancement focused on nurturing next-generation leaders, convergence talents, job-specific specialists and global talents. It emphasizes the importance of continuous self-development and provides opportunities to improve job-related capabilities for employees at the Group and affiliate levels.

### Management System



### Performance Indicators<sup>1</sup>

Category	Unit	2018	2019
Participants in training	Headcount	402	324
Training time per employee	Hour	10	16
Investment in training	KRW 10M	2	9
Fostering leaders	Headcount	21	74
Nurturing of convergence talents	Headcount	4	8
Nurturing of job-specific specialists	Headcount	30	88
New hires training	Headcount	53	83
Nurturing of global talents	Headcount	25	35
Other programs	Headcount	75	17

<sup>1</sup> Scope: All domestic business establishments

### Training Programs

HYUNDAI Electric has developed training programs to help all employees in various positions harness their full capabilities at their job based on the characteristics and roles by position. It focuses on developing job training courses by hearing the actual needs of departments and helping them develop training courses and foster instructors themselves. The developed courses contribute to improving job performance through autonomous education.

#### Development of Job Training

We focus on developing job training courses by hearing the actual needs of departments and helping them develop training courses and foster instructors themselves. The developed courses contribute to improving job performance through autonomous education

#### Nurturing of Convergence Talents

We have expanded the program to nurture convergence talents with consilience competency and business insights across Group affiliates. The program helps talented employees with humanities/business majors to learn engineering basics and provides cross-education for electricity/machinery engineers.

#### Diagnosis-Based Learning System

The role of leaders is getting more important to flexibly respond to rapidly-changing business conditions and efficiently manage the organization. As such, HYUNDAI Electric has established leadership capabilities required for each position. The managers are assessed for such capabilities and receive feedback every year.



### Detailed Curriculum for Each Training Program

Rank	Required for New	Fostering Leaders	Nurturing of Convergence Talents	Job Expertise Program	Nurturing of Global Talents	Others
Executives	New executives	HLC V	Special lecture for executives			
Senior Officer	Technical Master	HLC IV	Leadership development program	New Dept. Head	· Collective specialist training	· Language training for candidates of expatriate overseas corporation heads
Officer	Senior Technician	HLC III		New Team Leader	· Engineering education for humanities/business graduates	· OJT at the overseas business locations
	Technician	HLC II		New Senior Foreman	· Electricity-machinery cross-training	
New Hires		M/B			· Business administration training for engineers	
		HLC I			· Consortium training	
		J/B			· Online training	
		M/B			· Book reading program	
	Seasonal gathering event for learning, adaptability training	M/B				
	Mentoring	Jr. M/B				
	Onboarding training for new/experienced employees and meister high school graduates					

### 2020 Initiatives

- Strengthening managers' capabilities and foster potential leaders
- Boosting organizational vitality and strengthening communication across positions

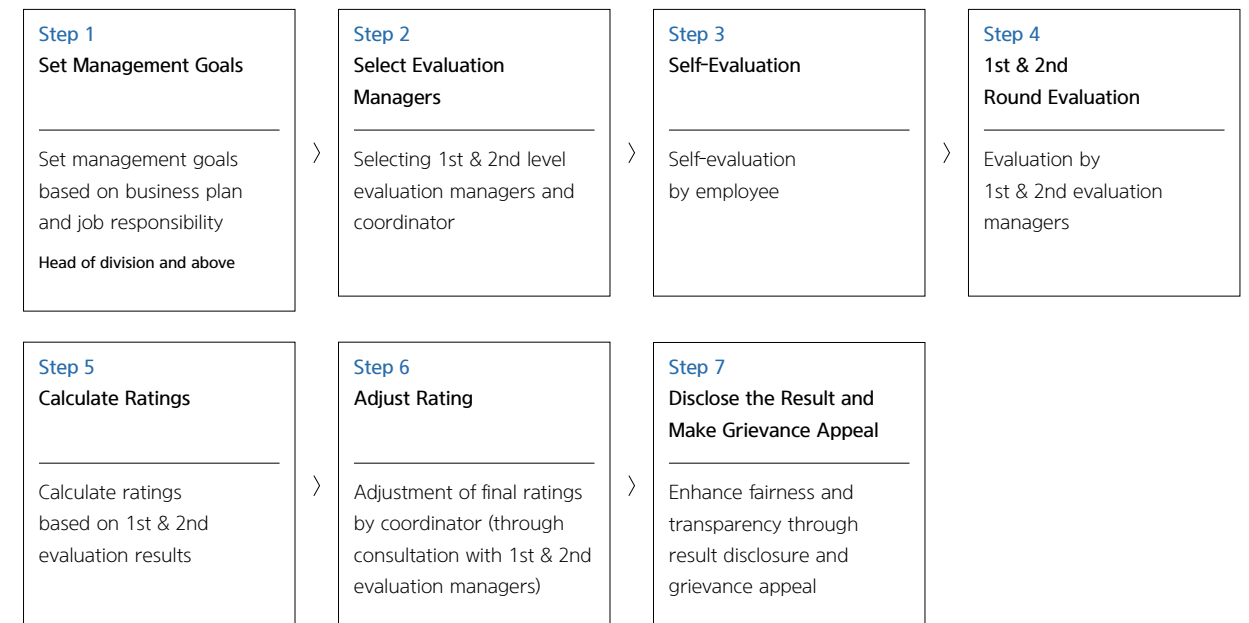
## Evaluation & Compensation

HYUNDAI Electric is operating a transparent and objective performance evaluation and compensation system to assess employees' efforts with fairness. Various rewards are provided to motivate employees and promote a sense of achievement in a positive work environment

### Management System

We conduct performance and competency evaluation on every employee in the first and second halves of each year. The results are used when making decisions on promotion, compensation, training and leader selection. Regular performance management throughout the year provides basic data for evaluation. Employees' performance and capabilities are evaluated comprehensively. The persons holding positions of department/team head or higher are subject to the Management by Objectives (MBO) process and evaluated for actual achievements.

### Evaluation Process



Performance Indicators<sup>1</sup>

Category		Unit	2017	2018	2019	
Percentage of employees evaluated for performance <sup>2</sup>	Total	%	97.2	94.4	97.6	
	Male	Knowledge workers	%	98.5	95.8	97.8
		Production workers	%	96.6	93.5	98.0
	Female	Knowledge workers	%	91.5	87.6	91.3
		Production workers	%	93.3	92.3	100
	Wages	KRW 100M		2,103	2,506	1,695

<sup>1</sup> Scope: All domestic business establishments

<sup>2</sup> Exclusive of employees newly hired, on leave or scheduled to retire

**Compensation System**

We reflect inflation rates in salary settlements to help our employees lead a stable life. The persons in managerial or higher positions are subject to a performance-based salary system that provides different compensation based on the evaluation of personal/organizational performance. Assistant managers and below positions receive a bonus, incentive and birthday cash gift in addition to their monthly salaries. The same standard is applied to the male and female employees for equality.

**Reward Policy**

Under the principle that every achievement should be rewarded, HYUNDAI Electric operates the mobile reward program for excellent performance with the aim to foster a culture of harmony and encouragement.

Reward System	Description
HYUNDAI Electric Award	Ensure fair selection of award winners among employees with excellent business achievements
On-the-spot reward for excellent performance	On-the-spot reward is given to employees who have contributed to visible earnings growth, cost reduction, etc. based on the profit improvement
Praise Your Colleague program	Mobile reward program to boost organizational vitality and create a culture of encouragement
Others	Safety and quality rewards, etc.

- Building a consensus to overcome the crisis
- Expanding performance-based reward system

2020 Initiatives

Employees' Quality of Life

HYUNDAI Electric operates a benefits program under the principle of providing practical supports for various needs of their employees. We help employees maintain the work-and-life balance by offering systematic support ranging from a work culture of the company to housing, family, leisure activity support and retirement preparation.

Key Programs

Housing & Living	Family	Leisure Activities
<ul style="list-style-type: none"> <li>· Loan interest support</li> <li>· Support for single employees</li> </ul>	<ul style="list-style-type: none"> <li>· Incentives for family events</li> <li>· Encouragement for maternity/parental leave</li> <li>· Nursing room, In-house childcare facilities</li> <li>· Tuition for childrent</li> </ul>	<ul style="list-style-type: none"> <li>· Vacation facilities</li> <li>· Comprehensive leisure town</li> <li>· Self-development block leave for those promoted</li> </ul>
Medical Service	Retirement Planning	Work Culture
<ul style="list-style-type: none"> <li>· Medical expense support</li> <li>· Medical checkup for family</li> </ul>	<ul style="list-style-type: none"> <li>· Retirement planning consulting</li> <li>· Retirement pension program</li> <li>· Personal pension support</li> </ul>	<ul style="list-style-type: none"> <li>· PC-Off program</li> <li>· Flesible working program</li> <li>· Workplace bullying prevention program</li> </ul>

Performance Indicators<sup>1</sup>

Category		Unit	2017	2018	2019	
Loan interest support amount		KRW 100M	16.9	19.2	19.5	
Employees on maternity leave	Male	Headcount	43	61	75	
	Female	Headcount	4	2	3	
Employees on parental leave	Eligible for parental leave <sup>2</sup>	Male	Headcount	68	79	56
		Female	Headcount	3	1	3
	Taking leave <sup>3</sup>	Male	Headcount	12	16	6
		Female	Headcount	8	3	1
	Returning to work <sup>4</sup>	Male	Headcount	2	17	10
		Female	Headcount	2	9	1
Serving 1+ year after return <sup>5</sup>	Male	%	100	53	90	
	Female	%	50	67	100	
Average continued service period <sup>6</sup>		Year	0.8	1.0	1.9	
Retirement planning consulting attendees		Headcount	46	54	47	
Retirement pension system	DB	KRW 100M	743	760	883	
	DC	KRW 100M	-	4.6	2.5	
Personal pension support amount		KRW 100M	6.4	6.3	5.6	
In-house employee benefits fund		KRW 100M	-	26.9	27.4	

<sup>1</sup> Scope: All domestic business establishments  
<sup>2</sup> Estimated based on money gift for birth paid by the company  
<sup>3</sup> Employees on parental leave as of 2019  
<sup>4</sup> Employees who have returned to work as of 2019  
<sup>5</sup> The percentage of workers staying at work at the end of the year after returning from parental leave in the previous year  
<sup>6</sup> Period from the spin-off on April 1, 2017

Major Activities and Achievements

Retirement Pension Program

HYUNDAI Electric operates a retirement pension system, for which all employees become eligible after one year of service. All employees aged 56 and older are under the Defined Contribution (DC) plan, while the rest are under the Defined Benefit (DB) plan, as agreed between the management and the labor union.

Retirement Planning Consulting

We offer retirement planning consulting to help employees maintain a healthy and stable life even after retirement. During the consulting session, participants learn about asset and health management and share information on starting a business or a new job for a new chapter of their life. A total of 32 hours were spent on the consulting and 149 employees had received counseling until 2019. Going forward, we plan to improve the program to reflect the needs of our employees as much as possible, while incorporating activities such as experiencing successful retirement, couple programs, and special lectures on IT & economy.

PC-Off & Flexible Workhour Programs

The maximum workhours have now been reduced to 52 per week, including overtime/holiday work. Under the new system, HYUNDAI Electric is striving to create a flexible work environment that promotes work-life balance and efficient working conditions. We have a PC-Off system that automatically shuts down PCs of all individuals at a fixed time. In addition, employees are asked to plan their work and apply for overtime work in advance, only up to 12 hours a week.

Workplace Bullying Prevention Program

HYUNDAI Electric changed various company policies (governing employment, disciplines and others) to respond to the revisions to the Labor Standards Act in July 2019 that strictly bans workplace bullying. In addition, the company has established a process to report/investigate/handle harassment incidents in the workplace and run anti-bullying campaigns through various media such as in-house broadcasts, news, bulletin boards, and pay slips. We will handle any harassment case in accordance with relevant procedures and provide preventive training every year for the establishment of a sound culture.

2020 Initiatives

- Promoting work-life balance by introducing work-from-home option and family care leave
- Continued monitoring of PC-Off system operation in line with the 52-hour workweek system

## Demonstrating Our Commitment to Global Corporate Citizenship

HYUNDAI Electric pursues a society of shared happiness under the core values of love, sharing and happiness. We will make a better future by creating shared values with strategic social contribution activities.

Shared Growth p.85

Social Contribution p.88

## Shared Growth

HYUNDAI Electric promotes the growth and development of partner companies under the core value of 'just, fair and legitimate performance.' We will create a healthy corporate ecosystem where everyone can grow hand-in-hand by establishing fair trade practices and supporting partners enhance their competitiveness.

### Management System

Core Value	Just, Fair and Legitimate Performance		
Key Policy	<p><b>Continuous System Improvements</b></p> <ul style="list-style-type: none"> <li>· Refraining from engaging in business in non-related fields</li> <li>· Encourage businesses of small and mid-sized companies</li> <li>· Building support systems and practice the three shared growth strategies</li> </ul>	<p><b>Establishing Fair Trade Practices</b></p> <ul style="list-style-type: none"> <li>· Introducing and comply with the four key guidelines of the Fair Trade Commission</li> <li>· Establish reasonable trade practices</li> <li>· Improve communication with partners</li> </ul>	<p><b>Enhancing Competitiveness of Partners</b></p> <ul style="list-style-type: none"> <li>· Support sales increase of partners</li> <li>· Support training, recruitment, technology and financing</li> <li>· Adjust unit price of delivery considering the situation of the partner companies</li> </ul>
Responsible Organization	<p><b>Group Shared Growth Committee</b></p> <p>Ensure company-wide consistent policy, activity planning and consultation</p>	<p><b>Shared Growth Council</b></p> <p>Develop policies for mutual growth and cooperation with primary and secondary subcontractors</p>	<p><b>Shared Growth Support Organization</b></p> <p>Implement shared growth policy and activities, and provide performance management and for shared growth feedback</p>

## Shared Growth Governance

Category	Description
Decision-making group (meeting frequency)	· Business Partners Council (semiannually)
Dedicated organization (Executive in charge) - major responsibilities	· Strategic Procurement Team (Executive in charge of procurement) - supervising meetings, collecting & implementing key decisions on support for partner companies
Regular communication channel with partner companies (meeting frequency)	· Business Partners Council's new year's meeting (annually), listening to VOC of partners (ad hoc basis) · Offering information on business status & outlook and policies for each sector, awarding prizes to the best performing partner companies

## Performance Indicators<sup>1</sup>

Category	Unit	2017	2018	2019
Cash payment	%	100	100	100
Early payment	KRW 100M	1,105	1,136	905
Trainees from partner companies <sup>2</sup>	Headcount	-	600	45
Partner companies in total (subcontracting partners)	No.	51	49	43
Regular management of partner companies <sup>3</sup>	%	-	37	15

<sup>1</sup> Scope: All domestic business establishments

<sup>2</sup> Business performance of 2017 refers to the integrated management indicators of the Group.

<sup>3</sup> Inclusive of partner companies' sustainability risks

## Definition of Supply Chain

Category	Key Products	Usage	Procurement Amount (KRW 100M)
Raw Material	Electrical devices	Transformer manufacturing, etc.	5,737
	Iron fittings		3,514
	Steel plate		931
	Cable		256
	Etc.		2,204
Total			12,642

\* HYUNDAI Electric's key supply chain refers to suppliers of raw materials for manufacturing. The procurement amount includes the amount paid by major subsidiaries (including intercompany transactions within the Group).

## Major Activities & Achievements

### Support for Partner Companies' Financial Stability

HYUNDAI Electric is planning to create the Share Growth Fund to support partner companies with their loan interest payments. Partner companies have been paid in cash, twice a month within 15 days of billing, which is enhancing their liquidity. Also, payments are made earlier than the due dates when the summer vacation season or national holidays are approaching to help our partner companies manage their funds efficiently.

### Vibrant Communication with Partner Companies

We visits partner companies on a regular basis to listen to their opinions and difficulties, and based on which, we put in place improvement measures. We organize a new year's meeting and invite the members of the Business Partners Council to share key management status and select excellent partners to award prizes considering their active quality control and delivery on schedule.

### Support for Training and Recruitment of Partner Companies

In association with HHI Technical Training Institute, we help partner companies address labor shortages by nurturing skilled workers and connecting them to the partner companies. The Technical Training Institute provides courses on essential manufacturing skills such as welding, installation, piping, machinery, electric, painting and etc.

### G-HiPRO

HYUNDAI Electric established the Global HYUNDAI Integrated Procurement System (G-HiPRO) in order to enhance transparency and fairness of the contract process. G-HiPRO's electronic bidding system transparently discloses our procurement in quotes, technical review, bidding and internal review, improving efficiency across the entire contract process from contract signing, delivery, issuance of transaction receipt to payment..

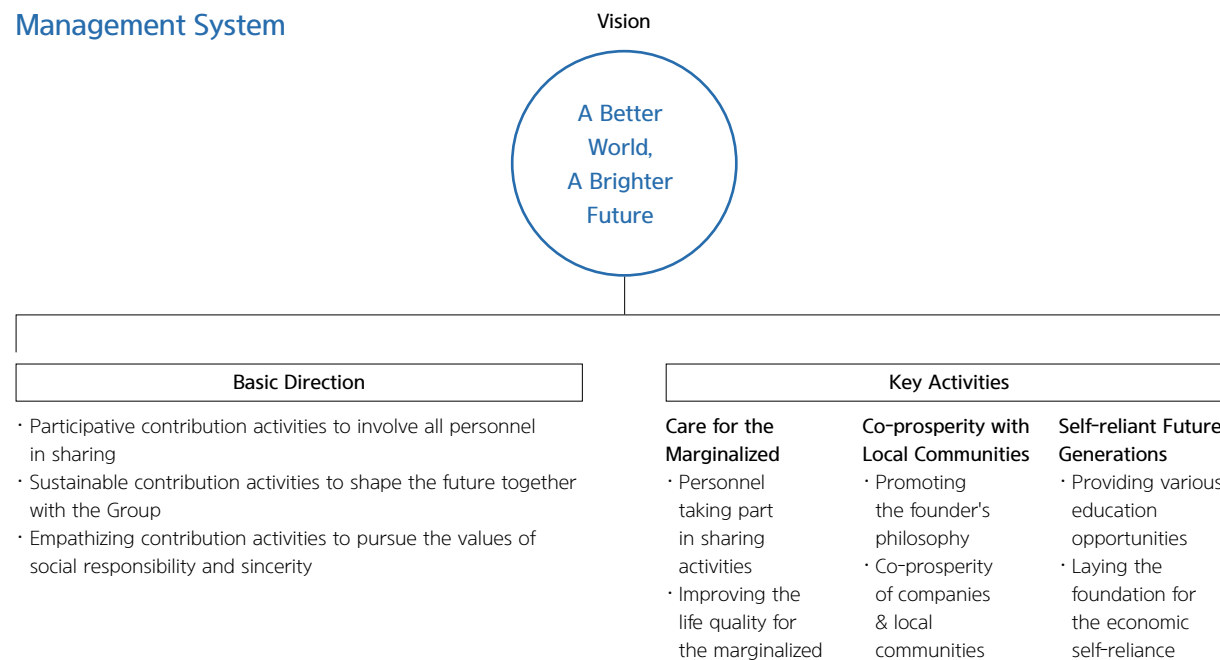
## 2020 Initiatives

- Strengthening partner companies' competitiveness in securing materials with enhanced internal stability, expanding the Council's activities to address the challenges partner companies are facing
- Setting up an advanced system that enables a fair and well-organized assessment of partner companies
- Based on the assessment results, providing excellent partners with opportunities to participate in a variety of development policies, while supporting other partners, regarding the areas in need of improvements

## Social Contribution

HYUNDAI Electric has been conducting various social contribution activities to be admired by all, under our management philosophy of contributing to the national and social development. In 2019, we adopted a new vision for our social contribution activities with the slogan of "A Better World, A Brighter Future." We will give the marginalized a helping hand, boost the local economy and nurture the future generations through participative contribution activities to involve all personnel in sharing, sustainable contribution activities to shape the future together with the Group, empathizing contribution activities to pursue the values of social responsibility and sincerity.

### Management System



### Performance Indicators

Category	Unit	2017	2018	2019
Total Contribution from sharing with local communities <sup>1</sup>	KRW 1,000	30,000	41,976	24,823
Total salary donation <sup>2</sup>	KRW 1,000	16,383	34,720	29,081
Salary donation participants <sup>2</sup>	Headcount	2,723	2,787	2,431

<sup>1</sup> Onnuri gift certificates, white rice supply, support for the economically distressed families  
<sup>2</sup> Those who signed up for salary donation where a fraction of their monthly paycheck is deducted for donation; financial support for welfare facilities

### Activities & Achievements of Support for the Marginalized

#### Salary Donation

HYUNDAI Electric employees donated less than KRW 1,000 each from their salaries, and a total of KRW 19 million was raised and handed over to Ulsan Metropolitan Council of Social Welfare, Hyunju Incorporated Association, Child Fund Korea and etc. to support public services for the marginalized.

#### Practicing Love for Neighbors

Some 18 new hires and 15 experienced hires who joined us in 2019 did volunteer work as part of group educational activities organized based on the date they joined the company at four local welfare facilities, Teayeon Rehabilitation Center, Hyejinwon, Chamsarang House, Social Welfare Center, to practice love and sharing.

### Activities & Achievements of Co-prosperity with Local Communities

#### Sharing Activities at Local Welfare Facilities for the Elders and the Disabled

HYUNDAI Electric has been taking part in HHI's assistance to local welfare facilities for the elderly and disabled over the past two decades, practicing love for the neighbors. In 2019, we delivered 336 sacks of rice to nine senior citizens centers and other welfare facilities located in Dong-gu, Ulsan.

#### Sisterhood Sponsorship

In 2018, HYUNDAI Electric signed a sisterhood sponsorship agreement with two local welfare facilities located in Seongnam-si, Love House and Arium, and has been maintaining such relationship. In 2019, we continued to support and share with those in need in our communities.

#### Charity Bazaar with Love

For the 26th Charity Bazaar with Love held in October 2019, donations were received from employees of HHI Group, local community organizations, heads of external organizations, local celebrities and Ulsan HYUNDAI Football Club members for the charity sales. A total of 12,000 pieces of donations were sold to local residents at bargain prices. The proceeds were used to hold the Making Kimchi with Love event and were awarded as scholarships for students in Ulsan.

### Activities and Achievements in Fostering Self-reliant Future Generations

#### Support for children in need of social protection

With the aim of promoting emergency responses and eliminating the welfare blind spots, HHI Group launched an emergency support project for distressed families in April 2016 and has been providing financial support for their living expenses. In 2019, HYUNDAI Electric raised KRW 7.2 million to support children in need of social protection from 6 households. We will continue our volunteer activities and support for families in need of protection and with financial difficulties.

## 2020 Initiatives

- Joining HHI Group's '1% sharing' activities led by HHI Group 1% Nanum Foundation (donating 1% of monthly salary for social contribution activities) to support the marginalized and welfare facilities
- Supporting the marginalized and enhancing self-reliance of the future generations in collaboration with social enterprises (e.g. organizations that support the employment and self-reliance of those over the legal age for child protection and people with disabilities)
- Promoting co-prosperity with local communities by relieving economic burdens of farming and fishing households through a campaign of purchasing local farm and marine produce
- A variety of volunteer activities to help underprivileged neighbors, including volunteering at a farm and removing marine algae

## PART. 3

# Appendix

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## Summary Consolidated Financial Statements

Unit: KRW 1M

Title of Account	3rd Reporting Period (as of Dec. 2019)	2nd Reporting Period (as of Dec. 2018)	1st Reporting Period (as of Dec. 2017)
<b>Summary Consolidated Financial Statements</b>			
Current assets	1,484,220	1,651,652	1,490,453
Cash & cash equivalents	189,725	376,329	241,374
Short-term financial assets	149,681	15,000	-
Trade & other receivables	487,479	649,019	841,533
Due from customers for contract work	-	-	5,185
Contract assets	202,505	145,931	-
Inventories	390,771	424,705	357,615
Non-current assets held for sale	33,629	-	-
Other current assets	30,431	40,668	44,746
Non-current assets	772,255	674,404	604,124
Long-term financial assets	2,998	3,098	1,790
Long-term trade & other receivables	1,162	1,195	1,140
Property, plant & equipment	516,893	527,967	471,562
Intangible assets	49,386	17,410	55,463
Other non-current assets	201,816	124,733	74,168
<b>Total assets</b>	<b>2,256,475</b>	<b>2,326,056</b>	<b>2,094,577</b>
Current liabilities	1,123,767	1,123,316	588,831
Non-current liabilities	432,492	351,441	465,631
<b>Total liabilities</b>	<b>1,556,259</b>	<b>1,474,757</b>	<b>1,054,463</b>
Capital stock	180,236	101,786	51,029
Capital surplus	901,707	874,149	925,475
Capital adjustment	-15,241	-15,241	-15,241
Accumulated other comprehensive income	61,155	63,625	62,923
Retained earnings (deficit)	-427,893	-173,308	15,625
Non-controlling interests	252	287	303
<b>Total equity</b>	<b>700,216</b>	<b>851,299</b>	<b>1,040,114</b>
<b>Summary Consolidated Statement of Comprehensive Income</b>	<b>(For the 12 months ended Dec. 31, 2019)</b>	<b>(For the 12 months ended Dec. 31, 2018)</b>	<b>(For the 9 months ended Dec. 31, 2017)</b>
Revenue	1,771,134	1,940,412	1,449,573
Operating profit (loss)	-156,694	-100,581	62,419
Net profit (loss)	-264,301	-178,926	14,281
Equity attributable to owners of the parent	-264,261	-178,910	14,281
Non-controlling interest	-39	-16	-
Total comprehensive income (loss)	-257,091	-188,246	13,098
Equity attributable to owners of the parent	-257,056	-188,230	13,098
Non-controlling interest	-35	-16	-
Earnings per parent share (loss)	0	0	0



# Independent Auditors' Report

To the Shareholders and Board of Directors of  
Hyundai Electric & Energy Systems Co., Ltd.  
March 17, 2020

## Opinion

We have audited consolidated financial statements of Hyundai Electric & Energy Systems Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as of December 31, 2019 and 2018, the consolidated statements of comprehensive loss, changes in equity and cash flows for the years then ended, and notes comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Finance Reporting Standards ("K-IFRS").

## Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing (KSAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements as of and for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### Assessment of impairment on cash generating unit

Management reviews whether there are any impairment indicators at the end of

each reporting period, and if there are any, the recoverable amount is estimated and the impairment is assessed. As described in the Note 4(12) to the consolidated financial statements, an impairment loss is recognized if the carrying amount exceeds the recoverable amount.

### Reasons determined as Key Audit Matters

The Group estimated the recoverable amount of Cash Generating Unit ("CGU") due to identified impairment indicators that caused by operating loss of ₩156,694 million resulting from the deterioration of the operating environment for the current year, and expected economic performance of assets less than expected level. Considering an increase in the uncertainty relates to the estimation of recoverable amount based on assumptions and estimates applied by the Group, we identified the assessment of impairment on CGU as a key audit matter.

### How Key Audit Matters were addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

- Assessing the qualification and independence of the external institution engaged by the Group for the impairment assessment.
- Engaging our valuation specialists to assist us in evaluating the key assumptions used to determine the value-in-use including the discount rates and others and the methodology of the assessment.
- Comparing and analyzing the financial data used for impairment assessment and mid-to long-term business plans confirmed by the management.
- Performing the recalculation of the recognized impairment loss.
- Testing certain internal controls over the Group's impairment assessment process.
- Evaluating the reliability of major forecasts used to estimate fair value less costs to sell and examine the accuracy of calculations.

### Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

## Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless

management either intends to liquidate the Group or the cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

## Auditors' Responsibility for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. 'Reasonable assurance' is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used in the preparation of the consolidated financial statements and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, then we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a

manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements as of and for the year ended December 31, 2019 are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on audit resulting in this independent auditors' report is Dong-Hyun Chi.

*KPMG Samjong Accounting Corp.*

Seoul, Korea  
March 17, 2020



This report is effective as of March 16, 2020, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

# GRI Content Index

## GRI Universal Standards

GRI 102: General Disclosures 2016				
Classification	Disclosure	Content	Page	Remark
Organizational Profile	102-1	Name of the organization	6	
	102-2	Activities, brands, products, and services	10~14	
	102-3	Location of headquarters	109	
	102-4	Location of operations	15	
	102-5	Ownership and legal form	52~55	
	102-6	Markets served	15	
	102-7	Scale of the organization	9, 16	
	102-8	Information on employees and other workers	16, annual report VIII. 1. Human Capital	In the disclosure of the annual report, other workers are defined as on-site subcontractors assigned to important part of the business.
	102-9	Supply chain	86	
	102-10	Significant changes to the organization and its supply chain	No significant changes	
	102-11	Precautionary Principle or approach	64~66	
	102-12	External initiatives	108	
	102-13	Membership of associations	108	
Strategy	102-14	Statement from senior decision-maker	6	
	102-15	Key impacts, risks, and opportunities	6~8	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	46~49	
	102-17	Mechanisms for advice and concerns about ethics	49	
Governance	102-18	Governance structure	52~55	
Stakeholder	102-40	List of stakeholder groups	21	
Engagement	102-41	Collective bargaining agreements	73	
	102-42	Identifying and selecting stakeholders	21	
	102-43	Approach to stakeholder engagement	21	
	102-44	Key topics and concerns raised	21	

GRI 102: General Disclosures 2016				
Classification	Disclosure	Content	Page	Remark
Reporting Practice	102-45	Entities included in the consolidated financial statements	15	
	102-46	Defining report content and topic Boundaries	29	
	102-47	List of material topics	30~31	
	102-48	Restatements of information	N/A	
	102-49	Changes in reporting	15	
	102-50	Reporting period	109	
	102-51	Date of most recent report	109	
	102-52	Reporting cycle	109	
	102-53	Contact point for questions regarding the report	109	
	102-54	Claims of reporting in accordance with the GRI Standards	109	
	102-55	GRI content index	98~104	
	102-56	External assurance	105~107	

GRI Topic Specific Standards

Economic Performances (GRI 200)				
GRI Standards	Disclosure	Content	Page	Remark
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	6~9	
	103-3	Evaluation of the management approach	6~9	
GRI 201: Economic Performances 2016	201-1	Direct economic value generated and distributed	9	
	201-2	Financial implications and other risks and opportunities due to climate change	66~67	
	201-3	Defined benefit plan obligations and other retirement plans	81	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	85, 88	
	103-3	Evaluation of the management approach	85, 88	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	85~90	
	203-2	Significant indirect economic impacts	85, 88	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	46	
	103-3	Evaluation of the management approach	46	
GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	49~51	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	43	
	103-3	Evaluation of the management approach	43	
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	N/A	

Environmental Performances (GRI 300)				
GRI Standards	Disclosure	Content	Page	Remark
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	64~65	
	103-3	Evaluation of the management approach	64~65	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	66	
	302-3	Energy intensity	66	
	302-4	Reduction of energy consumption	66	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	64~65	
	103-3	Evaluation of the management approach	64~65	
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	66	
	305-2	Energy indirect (Scope 2) GHG emissions	66	
	305-4	GHG emissions intensity	66	
	305-5	Reduction of GHG emissions	66	
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	67	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	64~65	
	103-3	Evaluation of the management approach	64~65	
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	68	
	306-2	Waste by type and disposal method	68	
	306-3	Significant spills	N/A	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	64	
	103-3	Evaluation of the management approach	64	
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	67	

Social Performances (GRI 400)				
GRI Standards	Disclosure	Content	Page	Remark
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	81	
	103-3	Evaluation of the management approach	82	
GRI 401: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	81~83	
	401-3	Parental leave	81	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	73	
	103-3	Evaluation of the management approach	73	
GRI 402 Labor Management Relations 2016	402-1	Minimum notice periods regarding operational changes	73	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	57, 61	
	103-3	Evaluation of the management approach	57, 61	
GRI 403: Occupational Health and Safety 2016	403-1	Workers representation in formal joint management-worker health and safety committees	57	
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	57, 61	
	403-3	Workers with high incidence or high risk of diseases related to their occupation	58, 61, 62	Exemplified in Safety Golden Rules
	403-4	Health and safety topics covered in formal agreements with trade unions	57	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	76	
	103-3	Evaluation of the management approach	76	

Social Performances (GRI 400)				
GRI Standards	Disclosure	Content	Page	Remark
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	77	Average hours are not provided by gender or employee category
	404-2	Programs for upgrading employee skills and transition assistance programs	77	
	404-3	Percentage of employees receiving regular performance and career development reviews	78	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	79	
	103-3	Evaluation of the management approach	79	
GRI 405: Diversity and Equal Opportunity 2016	405-2	Ratio of basic salary and remuneration of women to men	80	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	71	
	103-3	Evaluation of the management approach	71	
GRI 406: Non Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	71	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	71	
	103-3	Evaluation of the management approach	71	
GRI 412: Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	71	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	88	
	103-3	Evaluation of the management approach	88	

Social Performances (GRI 400)				
GRI Standards	Disclosure	Content	Page	Remark
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	88~90	
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28~31	
	103-2	The management approach and its components	43	
GRI 417: Marketing and Labeling 2016	103-3	Evaluation of the management approach	43	
	417-2	Incidents of non-compliance concerning product and service information and labeling	N/A	
GRI 103: Management Approach 2017	417-3	Incidents of non-compliance concerning marketing communications	N/A	
	103-4	Explanation of the material topic and its Boundary	28~31	
GRI 418: Customer Privacy 2016	103-5	The management approach and its components	43	
	103-6	Evaluation of the management approach	43	
GRI 103: Management Approach 2018	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	N/A	
	103-7	Explanation of the material topic and its Boundary	28~31	
	103-8	The management approach and its components	43	
GRI 419: Socio-economic Compliance 2018	103-9	Evaluation of the management approach	43	
	419-1	Non-compliance with laws and regulations in the social and economic area	22, 23	

## Third-Party Assurance Statement



### Relating to HYUNDAI Electric & Energy Systems Co., Ltd.'s Integrated Report for the 2019 calendar year

This Assurance Statement has been prepared for HYUNDAI Electric & Energy Systems Co., Ltd. in accordance with our contract but is intended for the readers of this Report.

### Terms of Engagement

Lloyd's Register Quality Assurance Limited (LR) was commissioned by HYUNDAI Electric & Energy Systems Co., Ltd. (HE abbreviated) to provide independent assurance on its '2020 HE Integrated Report' ("the report") against the assurance criteria below to a "moderate level of assurance and materiality" using "Accountability's AA1000AS (2008)", where the scope was a Type 2 engagement.

Our assurance engagement covered HE's operations and activities in Korea specifically the following requirements:

- Evaluating adherence to the AA1000 Account Ability Principles<sup>1</sup> of Inclusivity, Materiality and Responsiveness
- Confirming that the report is in accordance with GRI Standards<sup>2</sup> and core option
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
  - GRI 103 (Management Approach): 103-1, 103-2, 103-3
  - GRI 200 (Economic): 201-1, 201-2, 201-3, 203-1, 203-2, 205-2, 206-1
  - GRI 300 (Environmental): 302-1, 302-3, 302-4, 305-1, 305-2, 305-4, 305-5, 305-7, 306-1, 306-2, 306-3, 307-1- GRI 400 (Social): 401-2, 401-3, 402-1, 403-1, 403-2, 403-3, 403-4, 404-1, 404-2, 404-3, 405-2, 406-1, 412-1, 413-1, 417-2, 417-3, 418-1, 419-1

Our assurance engagement excluded the data and information of HE's suppliers, contractors and any third-parties mentioned in the report.

LR's responsibility is only to HE. LR disclaims any liability or responsibility to others as explained in the end footnote. HE's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of HE.

<sup>1</sup> <https://www.accountability.org>

<sup>2</sup> <https://www.globalreporting.org>

## LR's Opinion

Based on LR's approach nothing has come to our attention that would cause us to believe that HE has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report. The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagement is substantially lower than the assurance that would have been obtained had a high assurance engagement been performed.

## LR's Approach

LR's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing HE's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing HE's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by HE and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether HE makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing HE's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key
- Reviewing additional evidence made available by HE at their head office in Seoul.
- Checking that the GRI Content Index allows stakeholders to access sustainability indicators

## Observations

Further observations and findings, made during the assurance engagement, are:

- Stakeholder inclusivity: We are not aware of any key stakeholder groups that have been excluded from HE's stakeholder engagement process.
- Materiality: We are not aware of any material issues concerning HE's sustainability performance that have been excluded from the report. It should be noted that HE has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's
- Responsiveness: We recommend that HE should establish and execute mid-to long-term improvement plans that cover review of sustainability related policies and procedures, development of objectives and targets, awareness-raising activities, etc. to ensure that corporate social responsibility is applied to its organizational structure, practices and culture.
- Reliability: HE has reliable data management systems for the indicators in the report.

## LR's Standards, Competence and Independence

LR implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition and ISO/IEC 17021 Conformity assessment - Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LR ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent. This verification engagement is the only work undertaken by LR for HE and as such does not compromise our independence or impartiality.

Dated: 31st May 2020

LR Lead Verifier **Tae-Kyoung Kim**

On behalf of Lloyd's Register Quality Assurance Limited

17th Floor, Sinsong Building, 67 Yeouinaru-ro, Yeongdeungpo-gu, Seoul, Korea

LR reference: SEO00000665

## Membership Status

### Membership Status

- Conseil International des Grands Reseaux Electriques (CIGRE)
- Congres International des Reseaux Electriques de Distribution (CIRED) Korean National Committee
- Korea Electric Association
- Korea Smart Grid Association
- Korea Electrical Contractors Association
- Korea Electrical Manufacturers Association
- Ulsan Chamber of Commerce & Industry
- Korea Industrial Technology Association

### Information Disclosure Activities

Disclosure Channels for Additional Management Information		Main Contents
HYUNDAI Electric Website	<a href="http://www.hyundai-electric.com/elec/ko/index.jsp">http://www.hyundai-electric.com/elec/ko/index.jsp</a>	Introduction of the company, IR, products & dealerships, customer service
HYUNDAI Electric Instagram	<a href="https://www.instagram.com/hyundaelectric.official/">https://www.instagram.com/hyundaelectric.official/</a>	Information on HYUNDAI Electric products and news
HYUNDAI Electric YouTube	<a href="https://www.youtube.com/channel/UCGvTqI-HAyiv183xwVd8lsw">https://www.youtube.com/channel/UCGvTqI-HAyiv183xwVd8lsw</a>	Information on HYUNDAI Electric products and news
HHI Group Business Ethics Website	<a href="https://ethics.hhigroup.kr/html/main.html">https://ethics.hhigroup.kr/html/main.html</a>	Group ethics management direction, ethics regulations, online report/counselling
HHI Group Webzine 'Magazine H'	<a href="http://www.hyundai-holdings.co.kr/magazine-h">http://www.hyundai-holdings.co.kr/magazine-h</a>	HHI Group's general management status (monthly)
Financial Supervisory Service DART	<a href="http://dart.fss.or.kr/">http://dart.fss.or.kr/</a>	Various disclosures made either mandatorily as a listed company or voluntarily
Investor Relations	<a href="http://www.hyundai-electric.com/elec/ko/publicity/publicity6_1.jsp">http://www.hyundai-electric.com/elec/ko/publicity/publicity6_1.jsp</a>	Regular announcement of business performance and outlooks

HYUNDAI Electric Integrated Report introduces financial and non-financial performance of HYUNDAI Electric and its subsidiaries. To provide relevant information to stakeholders, core issues derived from our materiality assessment are reported on the basis of our Group's five management philosophies.

### Reporting Principles and Framework

- GRI (Global Reporting Initiative) Standards (Core)
- International Integrated Reporting Council's (IIRC) integrated reporting framework

### Reporting Boundary

- HYUNDAI Electric and its subsidiaries

### Reporting Scope

- Economic (under K-IFRS), social and environmental aspects (under domestic standards)

### Reporting Period

- For the year ended Dec. 31, 2019 (some of the achievements: 2017 to March 2020)

### Reporting Frequency

- Annual (last report issued in June 2019)

### Reporting Assurance

- Third party's independent assurance (overall sustainability management, GHG emissions and energy consumption separately verified)

### Those Credited with Helping Issue this Report

- Technology Planning Team, Quality Management Dept., Safety & Environment Team, Legal Team, Coexisting Cooperation Team, HR Team, Strategic Procurement Team, General Affairs Team, Finance Team, Accounting Team

### Head Office Address

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HYUNDAI Electric Integrated Report 2020 is available on our website (<http://www.hyundai-electric.com/>) as an interactive PDF for more convenient user experience.

### Contact Point

Please contact our Finance Team for any questions or comments regarding this report.

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