



THINK THE GREEN

KC GreenHoldings

2020 Sustainability Report

Think the Green

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*This message means our inclusion of and connection with various stakeholders with whom we exchange influences by expressing the possibility of inserting multiple parties, such as Environment, Society, People, Companies, and Businesses, with brackets in addition to the keyword “Green” that connotes thinking about the global environment.

About This Report

To share the effects of interactions among KC GreenHoldings and its affiliates and the outcome of our efforts for more sustainable Earth, we have annually published the Sustainability Report with the 9th report released this year.

Publication rules	GRI Standards
Reporting target	KC GreenHoldings, its subsidiaries, and some grandchild companies
Reporting period	January to December 2019 (including part of the 2020 performance)
Reporting Criteria	Information for a minimum of 3 years based on the company's fiscal year (USD currency, 1 USD = 1,158 KRW, 31 December 2019)
Distribution	Permanent disclosure on the KC GreenHoldings website (www.kcgreenholdings.com)
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THINK THE GREEN

CLIMATE EMERGENCY
AND KC

In November last year, the Oxford Dictionary selected **climate emergency** as the word of the year 2019 and defined it as **a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it**. Climate change affects not only temperatures or weather conditions but also a wide range of areas, including biodiversity, ecosystems, food, and economy. Climate scientists warned that a 2°C or higher increase in global average temperature over the industrialization period (1850 to 1900) would make it no longer possible to predict and control the resulting impacts. Thus, the temperature rise should be capped at 1.5°C.

MATERIAL TOPIC

Reducing Pollutant Emissions

LINKS TO SDGs



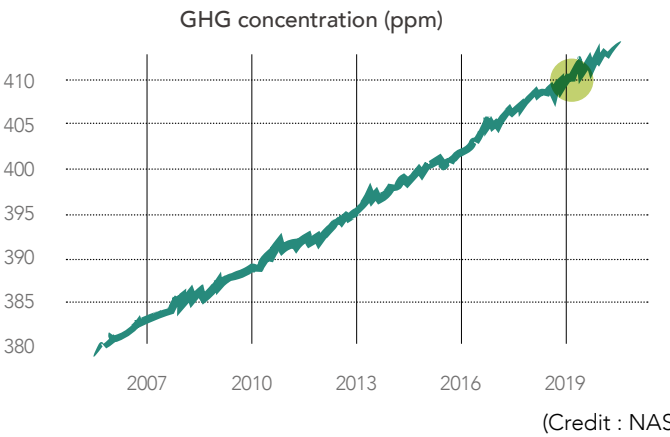
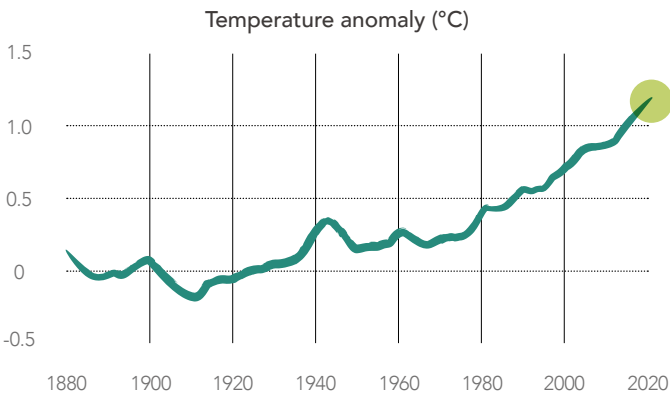
WHY DOES THIS TOPIC MATTER?

At the 21st United Nations Framework Convention on Climate Change held in 2015, 195 countries unanimously adopted the Paris Climate Agreement aimed at keeping the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase 1.5°C. However, despite this international agreement, global warming is speeding up, and GHG concentrations are reaching a record high every year. According to the World Meteorological Organization (WMO) statistics, the year 2019 recorded **an approximately 1.1°C higher** global average temperature than the pre-industrial levels, becoming **the second hottest year** behind 2016 **in the history of weather observations**.

In June and July last year, most European regions suffered from heatwaves. During this period, 7 to 9°C higher temperatures than average years caused 1,435 deaths in France only and at least 400 deaths in the Netherlands. Also, many lives were lost in Germany, the UK, Spain, Italy, and Belgium due to the scorching heat. Not only Europe but also Australia and Alaska witnessed the highest temperatures on record. In Russia, Australia, and the Amazon, big wildfires caused by heatwaves combined with droughts not only led to huge losses of life and property but also took an irreversible toll on the regions by destroying their ecosystems.

Also, global average temperature increases become an occasional cause of abnormally low temperatures and recurring climate disasters by affecting atmospheric circulations. In 2019, abnormally low temperatures and heavy snowstorms took 22 lives in northern India, Australia, the UK, Germany, Austria, and the eastern US, and 66 tropical cyclones were developed in the northern hemisphere only. The most powerful hurricane, Dorian, was known to have caused 69 casualties and an economic loss of up to 3 billion dollars. It is time to take urgent action to prevent more significant damage from climate change.

Experts point out the reduction of GHG emissions as the foremost task to adapt to and mitigate climate change. Because human activities cause a change in the amounts of GHG, every party should make active efforts to reduce GHG emissions in various areas, such as government regulations, companies' resources and technologies, and citizens' attention and practice. In June last year, as the first G7 member state, the UK legally stipulated a goal of achieving a 100% reduction in its carbon emissions by 2050. The European Union declared a climate emergency in November last year and called on the member states to promise to accomplish net-zero carbon emissions by 2050. Global enterprises are also actively joining efforts to reduce carbon emissions by increasing



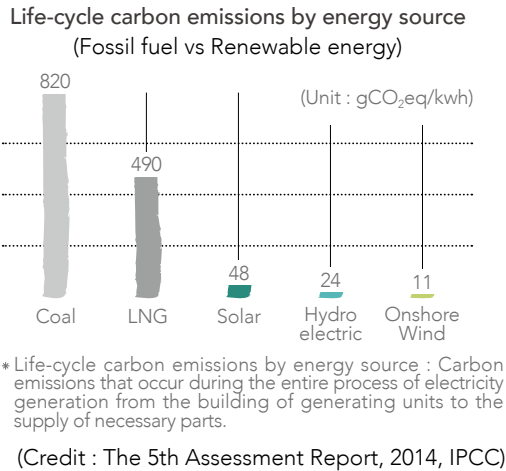
the use of sustainable fuels and making further investments in improving energy efficiency. At the UN Climate Action Summit held last September, the Swedish teenage environmental activist Greta Thunberg said in her speech that despite over 30 years of discussions on how to deal with climate change, there are still no actions taken. Thunberg's such speech transformed vague anxieties about climate change into a movement of demanding global changes and created the attention and participation of governments and citizens regarding the environment. For this, she was also selected as Time's 2019 Person of the Year.

MANAGEMENT APPROACH

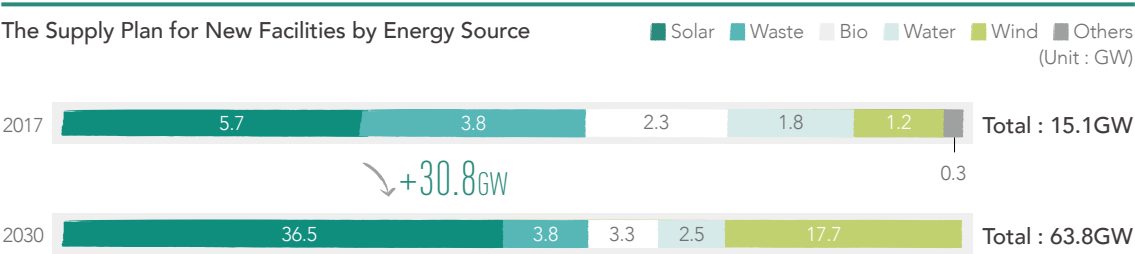
Under the corporate mission, “committed to continue to the sustainable development of the global society,” KC GreenHoldings has expanded its portfolio into environment-related businesses. We believe that climate change is our responsibility that requires our attention and solutions as a global environmental company. The affiliates of KC GreenHoldings are contributing to reducing GHG emissions by adopting various business models such as generating low-carbon energy through solar power plants, supplying steam energy by recovering the heat from waste incineration, saving the energy consumed for product manufacturing by reducing the use of products, and increasing production efficiency with products designed to allow the reuse of old resources.

1
Production of
Low-Carbon Energy

With the growing consideration of greater energy security, GHG emissions reduction, and energy efficiency, fossil fuel plants, which have been a predominant energy source, are rapidly being replaced with renewable energy plants. Among the renewable energy, the market for solar power is globally being expanded even in developing countries thanks to its advantage of being economical due to greater accessibility to its energy source than other renewable energies and meager costs for securing raw materials as well as maintenance and operations.



South Korea announced the Renewable Energy 3020 Plan in December 2017, which presents the plan for increasing renewable energy to 20% of total power generation by 2030. As this plan notably includes a scheme for developing solar and wind power as crucial energy sources, it seems that the solar energy market is growing fast.



(Source : The Renewable Energy 3020 Plan, 2017, the Ministry of Trade, Industry and Energy)



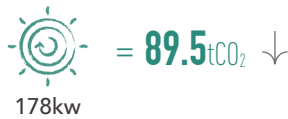
Floating solar power plant in Boryeong

KC Solar&Energy (former KC SolarEnergy) is an affiliate of KC GreenHoldings in the renewable energy business unit. Since its establishment in 2005, the company has been a specialist in the investment, design, construction, and maintenance of large-scale solar power plants. Notably, the company constructs solar power plant in an eco-friendly manner without deforestation and in various places such as abandoned salt farms, parking lots, building roofs, and water surfaces. Last year, KC Solar&Energy installed a 4,175 kW solar power system and a 10,136 kWh energy storage system (ESS) on a landfill site of KC Landfill Service that operates waste landfills. After beginning its operation in late October 2019, the solar power plant generated a total of 773,890 kWh of electricity last year. The ESS is set to start its service in January 2020 and sell the power stored during the daytime (10 am to 4 pm) at night-time when there is no power generation. Including them, the total capacity of solar power generating units constructed by KC Solar&Energy in 2019 amounted to 20.2 MW, which produces the effect of a reduction in GHG emissions by 10,156.2 tons each year. KC Glass & Materials is also annually producing about 154,759 kWh of electric energy by installing a 178.024 kW solar power system on the rooftop of the company's headquarter factory, which can reduce around 89.5 tons of GHG emissions.

The solar power generating units installed by
KC Solar&Energy in 2019



The solar power generating units of KC Glass & Materials



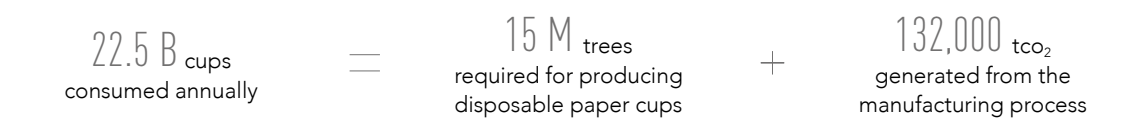
* Energy storage system (ESS) : The facility that compensates for the intermittency of renewable energy sources through efficient energy management that stores secondary power and uses the stored power when there are power shortages.

2

Energy Conservation

2-1 Creation of Eco-Friendly Offices

In South Korea, the number of annually consumed disposable paper cups is estimated at 22.5 billion. Approximately 15 million 30-year-old trees should be cut down to produce 22.5 billion paper cups, and 132,000 tons of carbon dioxide is generated from the process of manufacturing paper cups using 15 million trees. It requires 47 million 250 thousand more trees to absorb the carbon generated by the production process.



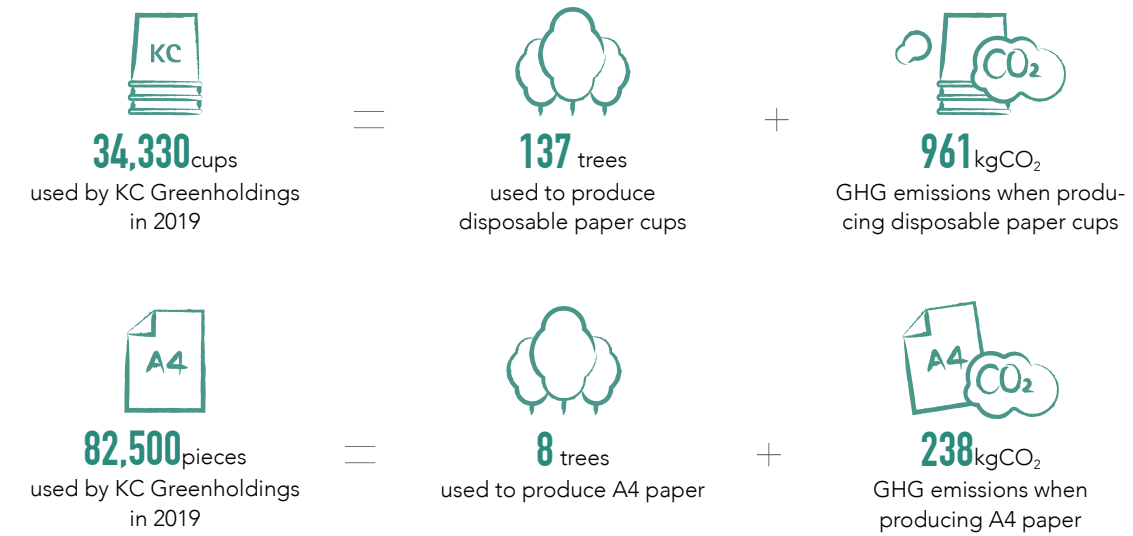
To contribute to reduction of GHG emission by saving enery and item besides disposable paper cups wasted in office, KC GreenHoldings declared eco-friendly offices and obtained the signatures from employees for committment. We also set out five rules of conduct like below and will implement from January 2020.

- 1 Use mugs or tumblers instead of disposable cups in the office not to waste resources.
- 2 Avoid the purchase and use of disposable products and individually packaged products to reduce the discharge of wastes.
- 3 Share reports in advance and reporting using tablets, PCs, or laptops to creat a paperless office.
- 4 Limit the use of personal air conditioners/heaters to save electricity.
- 5 Actively use public transportation when commuting to reduce fine dust.

The saving cost from the creation of eco-friendly offices will be donated back to projects aimed at saving the environment, and we will share the environmental performance through the next report.



Cups for visitors



2-2 Waste Heat Exchange

Waste heat generated after waste incineration is used as an energy source that can replace fossil fuels. Using waste heat energy is considered one of the ways to reduce GHG because it helps reduce the use of fossil fuels. KC EnviroServices produces steam using the waste heat during the incineration of specified and general wastes at the intermediate waste treatment stage and then supplies the steam to adjacent worksites in need of waste heat energy. KC EnviroServices can produce about 100 tons of waste heat steam per hour, and the steam energy produced and sold by the company last year totaled 339,943 tons.

3

Product Designs
Considering Reuse

Because of the generation of GHG in the entire process from products’ production to disposal, designing products for long-term use is one of the ways to contribute to reducing GHG emissions. Modular and movable partitions, which form the main product line of Clestra Hauserman, offer high mobility because they are designed to apply to any space and can be installed or taken apart through a simple assembly job. Besides, the company provides repair and redesign services so that existing products can be used without disposal, even in the case of spatial relocation or transformation. These characteristics and strengths of Clestra Hauserman’s products and services extend their life cycle, thereby enabling the long-term reduction of GHG emissions in the process of manufacturing and discarding interior materials.

An example of reusing Clestra Hauserman’s Products



AVITO project

Clestra Hauserman’s products are also aligned with the latest consumption trend and the values pursued by today’s customers. With a growing interest in the environment throughout the world and the notable emergence of millennials, who set importance on social and ethical values, as critical consumers, spending money on stuffs with eco-friendly and sustainable values has become a leading trend. Clestra Hauserman’s products not only have long life cycles but also are durable thanks to the use of materials compliant with the best environmental standards. Furthermore, they are eco-friendly given that it causes little dust, which is typically generated at construction sites and undergoes the coating process to be used without concern about VOCs or harmful substances. Clestra Hauserman is endeavoring to go beyond the design of office spaces and deliver economic and environmental values to customers through eco-friendly and sustainable office spaces. KC GreenHoldings and its affiliates are also helping reduce GHG emissions by creating eco-friendly office spaces using Clestra Hauserman’s products and reusing its partitions.

Additionally, Clestra Hauserman’s products can be installed simply by assembling without adhesives and be reused, which makes them eligible for the Leadership in Energy and Environmental Design (LEED) certification. The LEED certification is a rating system that evaluates the environmental impact of every process from design to construction. It can help use energy efficiently and reduce fine dust, harmful substances, and GHG emissions. Specifically, of the LEED evaluation items, Clestra Hauserman’s products can directly meet three requirements : 1) materials and resources, 2) indoor environmental quality, and 3) innovativeness. The LEED certification projects where Clestra Hauserman participated in 2019 include EQUINIX and Covestro.

- 1) Materials and resources – 30% recycling of resources, an extension of products’ shelf-life, ease of rearrangement, utilization of local resources
- 2) Indoor environmental quality – Materials with low-carbon emissions, nonuse of adhesives, powder-based coating, mechanical connection
- 3) Innovation - Innovative designs, innovative and sustainable strategies

CEO Message



Dear Stakeholders,

KC GreenHoldings marked the 10th year as of 2019 since it was launched as a holding company through corporate spin-off with KC Cottrell.

For the last ten years, KC GreenHoldings has reorganized its internal divisions to serve and support its affiliates in various fields as a holding company. The finance management team of KC GreenHoldings, which used to manage KC Cottrell as well, was separated into a finance management team of each company last year to focus more on the financial risks of the affiliates and enhance the reliability and accuracy of consolidated financial statements. As a result, we have a strategy and management team, a sustainable management team newly established in 2017, and a separate finance management team

in 2019. These three teams can make KC GreenHoldings fully perform the functions of supporting and managing its affiliates as a holding company.

We made every effort to solve various environmental problems last year. We entered the field of food waste recycling and recycling waste screening and supply as well as established an engineering center to train professional engineers. We first attempted the KC Comradeship Project that trains new employees of the affiliates in Korea on the mission and value of KC to give them a sense of belonging to KC Group and emphasize the importance of training employees, which KC considers a top priority. Besides, we have established the KC CSR Initiative that contains the direction of CSR activities of affiliates so that KC GreenHoldings and its affiliates can deliver social values as a group.


With the spread of the unprecedented pandemic since the beginning of 2020, the global economy has shrunk, making it difficult to carry out the originally planned activities. Nevertheless, we will not waste this crisis and make into opportunities by faithfully implementing plans like below;

First, as a green environmental company, KC GreenHoldings and its affiliates will continue to research and invest in new technologies and businesses to solve global environmental problems. Moreover, we will enhance employees’ capabilities through generous support for self-improvement and education, and continue to practice and spread sustainable management based on the KC CSR initiative. Lastly, we will put many efforts into creating a healthy organizational culture in which employees can perform their jobs adequately while flexibly responding to the crisis.

The 2020 Sustainability Report provides detailed information, especially on how KC GreenHoldings and its affiliates are responding to climate change, which is one of the crucial issues in the world, focusing on the perspective of KC GreenHoldings’ sustainable management activities and businesses.

Although it is an uncertain situation when the coronavirus pandemic will end and how our lives will change afterward, we believe that KC GreenHoldings and its affiliates can solve the problem through communication with stakeholders and that we will overcome this crisis. We look forward to your continued interest and support. Thank you.

June 2020
Chairman & CEO of KC GreenHoldings Co., Ltd.

Taeyoung Lee


KC GreenHoldings switched to a holding company system in 2010 by spinning off its engineering business unit to enhance corporate management efficiency and establish transparent governance.

Company name	KC GreenHoldings Co., Ltd.		
Location	11Fl, 34 Sangamsan-ro, Mapo-gu, Seoul, South Korea		
CEO	Taeyoung Lee	Est. Date	November 27, 1973
No. of employees	23	Shareholder composition	Taeyoung Lee 32.08%
Business	Holding businesses such as management consulting and investment		Sanyeon Co., Ltd 8.14%
Credit rating	A- (evaluation by NICE D&B Co.,Ltd, April 17, 2019)		Jaeyoung Lee 6.89%
Website	www.kcgreenholdings.com		

- 01 KC Cottrell
 - KC Cottrell Taiwan
 - KC Cottrell India
 - KC Air Filtertech
 - Nol-Tec Korea
 - Yuyang Technologies
 - KCVCS
 - KC Cottrell Engineering Service
- 02 Changchun KC Envirotech
- 03 Lodge Cottrell
- 04 KC Cottrell Vietnam
- 05 Nol-Tec Systems
 - Nol-Tec Systems Shanghai
- 06 NWL Pacific
- 07 KC Envirotech E&C

- 08 KC EnviroServices
- KC Landfill Service
- KC Catalyst Services
- KC EcoCycle
- Eumseong Biochips
- Seongju Biochips
- KC GreenEnergy
- KC Bio Resources
- 09 KC Eco Logistics
- 10 KC GreenMaterials

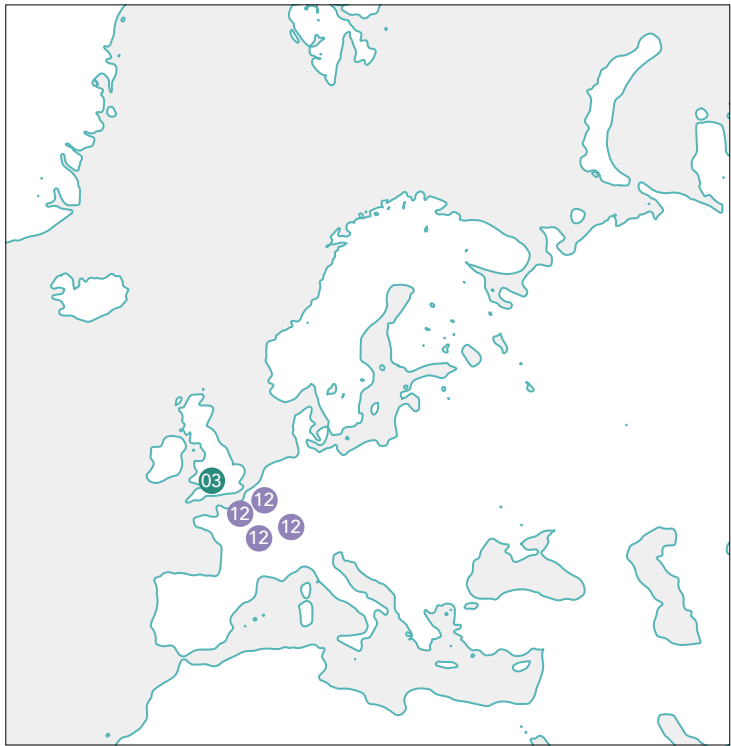
- 11 KC Glass & Materials
 - └ KC Glass Resources
- 12 Clestra Hauserman SA
 - └ Clestra International
 - └ Mecanalu
 - └ Clestra USA
 - └ Clestra Hauserman Overseas Contracting
- 13 Clestra Hauserman
 - └ Clestra
 - └ Clestra K.K
 - └ Clestra Hauserman (Taicang)
 - └ Architecture Product

14 KC Solar&Energy

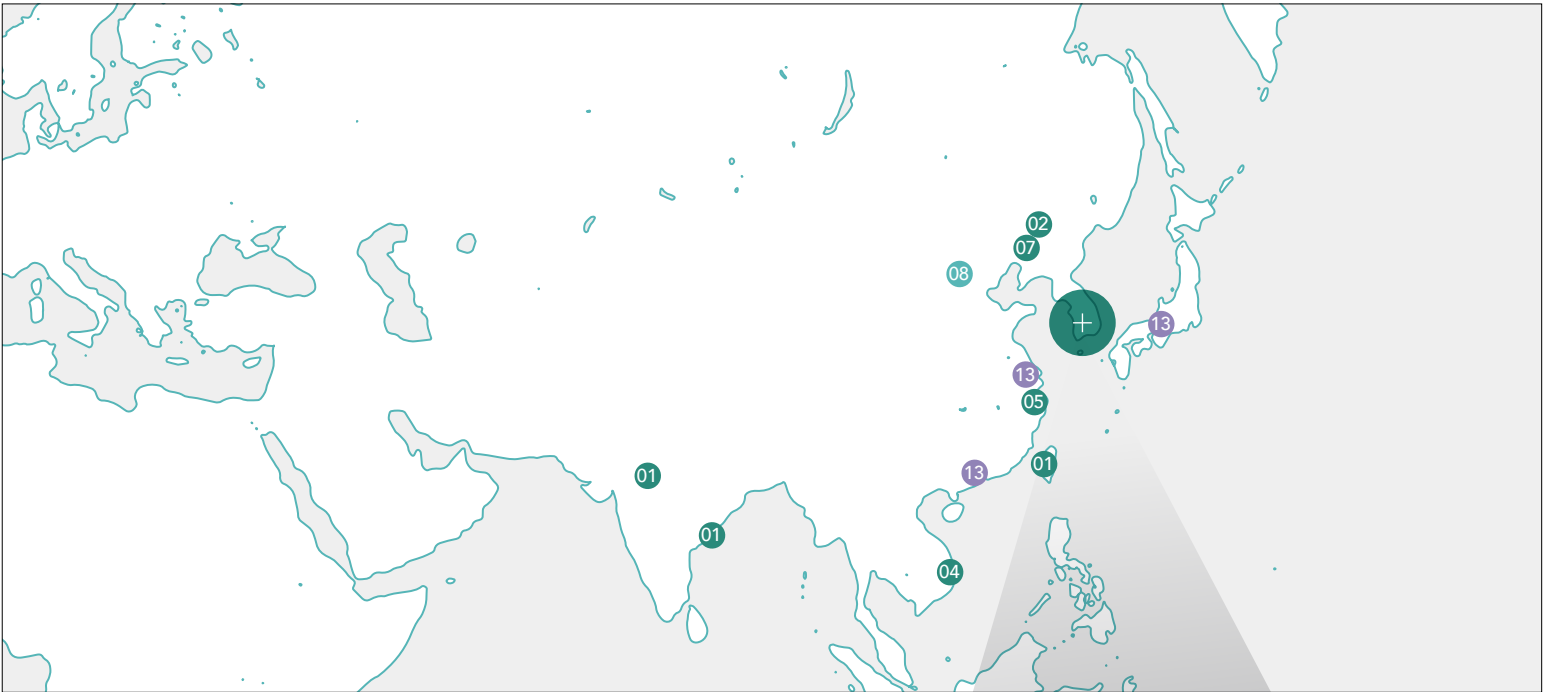
* The list of affiliates includes KC GreenHoldings' subsidiaries and grand child companies on a consolidated basis only.



NORTH AMERICA

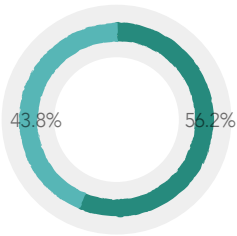
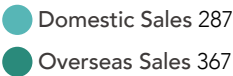


EUROPE

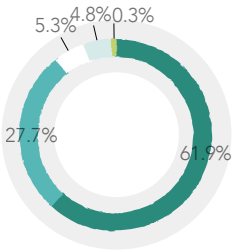


ASIA

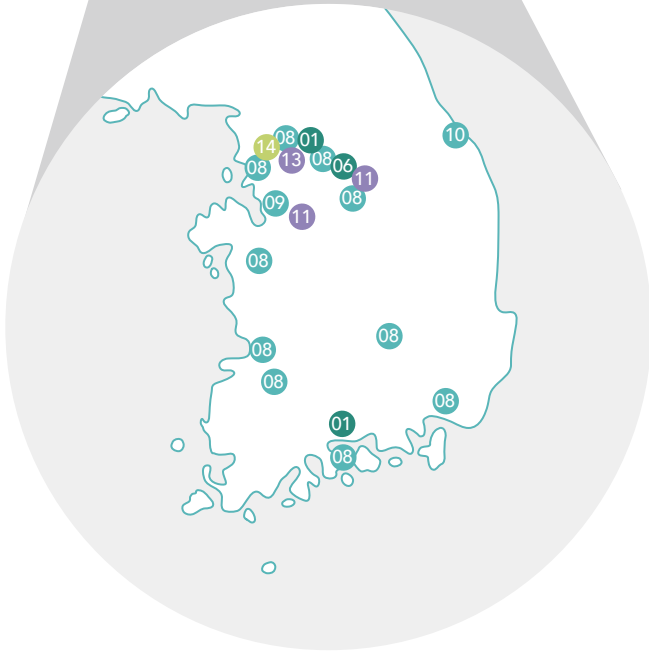
(Unit : USD million)



(Unit : USD million)



* As of December 31, 2019, both domestic & overseas sales and sales by continent include internal transaction values between affiliates.

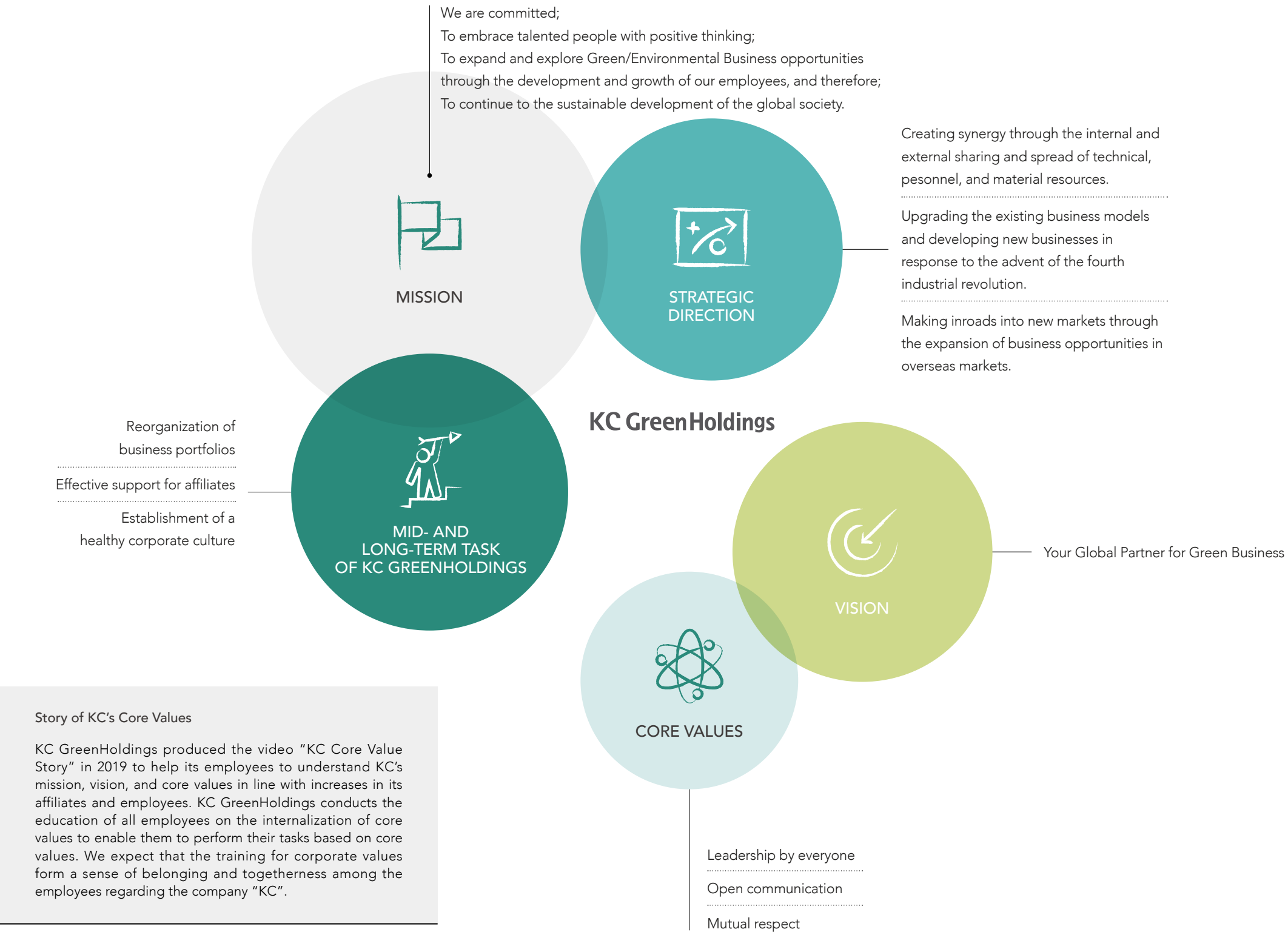


SOUTH KOREA

THINK THE GREEN

Mission, Vision, and Core Values

KC GreenHoldings’ vision, “Your Global Partner for Green Business,” reflects the company’s future business direction and long-term goal of growing into a global environmental specialist. The vision of KC GreenHoldings connotes open communication and mutual respect, which are the company’s core values, using the word “partner,” which means a co-worker or companion.



Governance

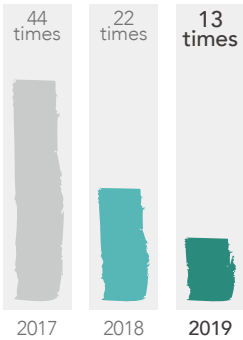
The Board of Directors

The board of directors is a decision-making body that decides matters set by legislations or the articles of association, matters entrusted by general meetings of stockholders, and important matters regarding the basic policy of corporate management and business execution. It publishes agendas of the board of directors and whether nonexecutive directors participate or not through an electronic disclosure system. Seven members constitute the board of directors, including four inside directors, two outside directors, and one auditor. In 2019, the board of directors meeting was held 13 times with the 100% participation of outside directors and auditors.

Board of Directors Meeting in 2019

The number of board meetings held

The average participation rate of outside directors and auditors



* The number of board meeting held has decreased and the average participation rate of nonexecutive directors and auditors has increased according to the operating rules on the board of directors.

Directors and Auditors (As of April 2020)

Category	Name	Work Experience	Inauguration	Gender
Inside director	Taeyoung Lee	Chairman&CEO of KC GreenHoldings Co., Ltd. Chairman of KC Cottrell Co., Ltd. Chairman of KC EnviroServices Co., Ltd. Director of Ecomom Korea Simon Fraser University MBA Seoul National University BBA	2018. 03	Male
	Jongkyoo Kim	President&COO of KC GreenHoldings Co., Ltd. Seoul National University BBA	2018. 03	Male
	Jeongwan Kim	Vice President&CFO of KC GreenHoldings Co., Ltd. CEO of KC Glass & Materials Co., Ltd. CEO of KC Glass Resources Co., Ltd. Seoul National University BBA, MBA CPA	2019. 03	Male
	Kisuh Park	Vice President&CTO of KC GreenHoldings Co., Ltd. CEO of KC GreenMaterials Co., Ltd. Portland State University, Master in International Management Seoul National University B.Eng.	2019. 03	Male
Outside director	Kyeonghoon Lee	Vice President of POSCO ENERGY (Former) Sunchon National University M&D.Eng Chung-Ang University B.Eng.	2020. 03	Male
	Jaekyung Lee	Professor of Business Administration, Kookmin University The University of Texas, Austin, Ph.D. in accounting The University of California, Berkeley, MBA Seoul National University, BBA	2019. 03	Male
Auditor	Haingmin Kwon	CEO of KT Powertel (Former) CEO of KTF (Former) KAIST, MBA Seoul National University, BBA	2020. 03	Male

Evaluation & Remuneration

The remuneration of board members (directors and an auditor) was paid by combining basic annual salaries and performance-based bonuses according to the organization’s financial and nonfinancial business performances within the annual remuneration limit approved by the general meeting of stockholders held in March 2019. The total remuneration limit for seven board members, which was approved at a board meeting in 2019, is 3,454 thousand dollars, and the actual payment is 810 thousand dollars.

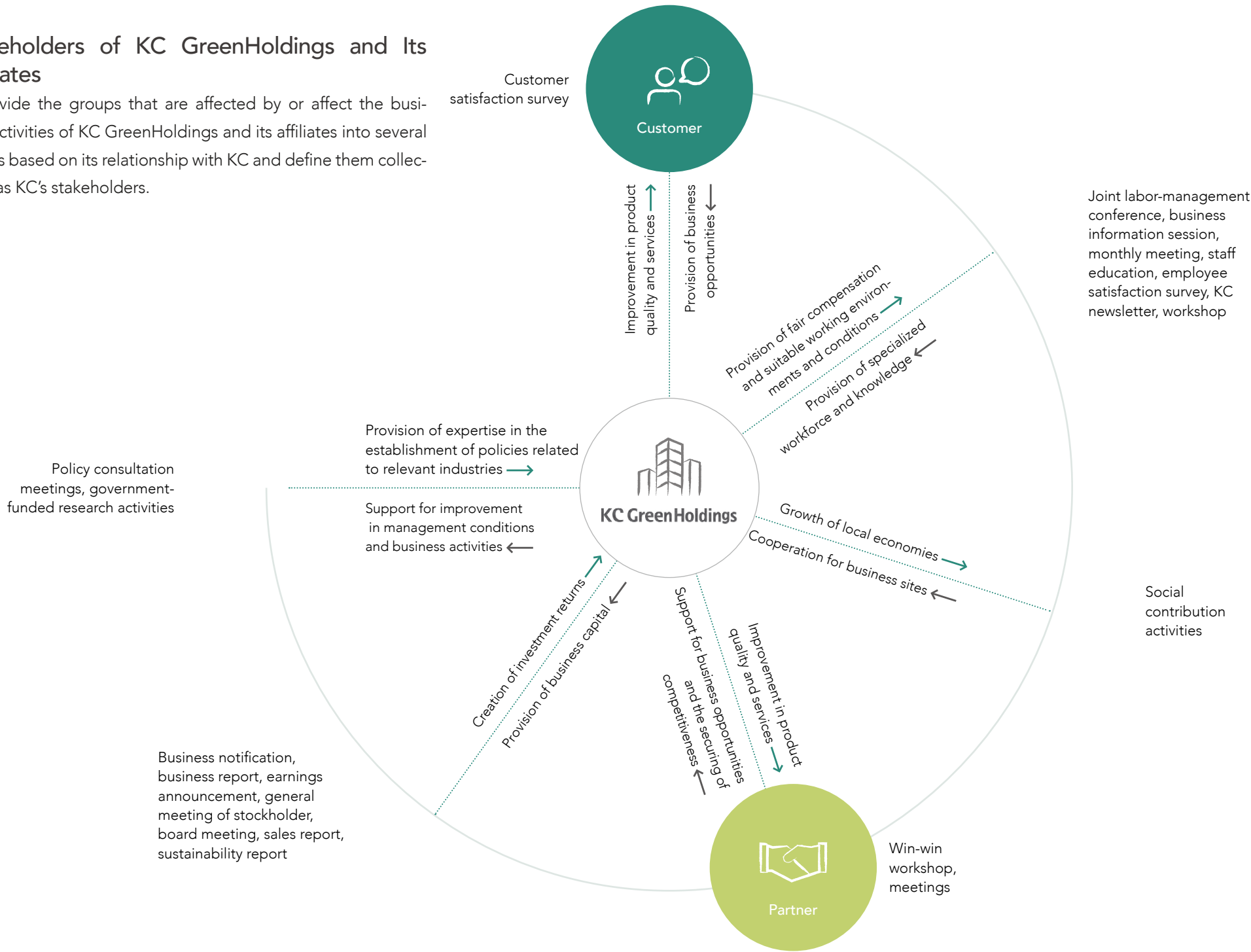
Category		No. of Members	Total Remune-ration Limit	Actual Payment
Directors	Inside directors	4	USD 3,022 thousand	USD 657 thousand
	Outside directors	2		USD 68 thousand
Auditors	Auditors	1	USD 432 thousand	USD 85 thousand

THINK THE GREEN

Stakeholder Communication

Stakeholders of KC GreenHoldings and Its Affiliates

We divide the groups that are affected by or affect the business activities of KC GreenHoldings and its affiliates into several groups based on its relationship with KC and define them collectively as KC's stakeholders.



Stakeholder Opinions

To collect various opinions from our stakeholders, KC GreenHoldings interviewed our stockholder/investor, employee, local community, and government groups regarding KC's sustainable management activities and reports. We will continue to pay attention to your opinions and create interactive communication channels.

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Materiality Assessment

We have conducted a materiality assessment to report sustainable management topics that KC GreenHoldings and its stakeholders consider as material and systematically manage our selected material topics.

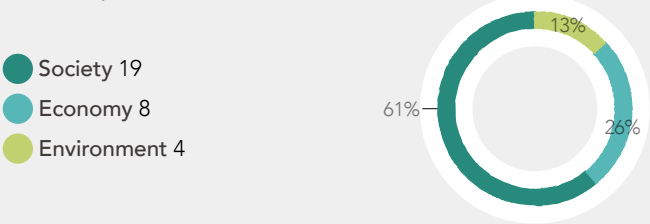
STEP 1 Organization of a pool of issues

Considering KC GreenHoldings and its affiliates, we organized a pool of 105 issues by reviewing the global standard indexes GRI Standards and ISO 26000 as well as the 2020 KC GreenHoldings business plan.

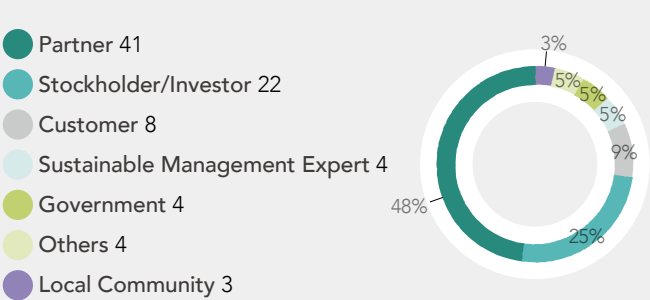
STEP 2 A Materiality Survey

Period : February 3 to 14, 2020 (two weeks)
Method : Mail, website, and groupware
Subject : Stakeholders (total of 87 participants) and employees (total of 142 participants)
Items : A total of 31 topics in three domains (economy, environment, society) derived from the categorization of 105 issues

Survey Topics by Category



No. of Respondents by stakeholders



STEP 3 Selection of Material Topics

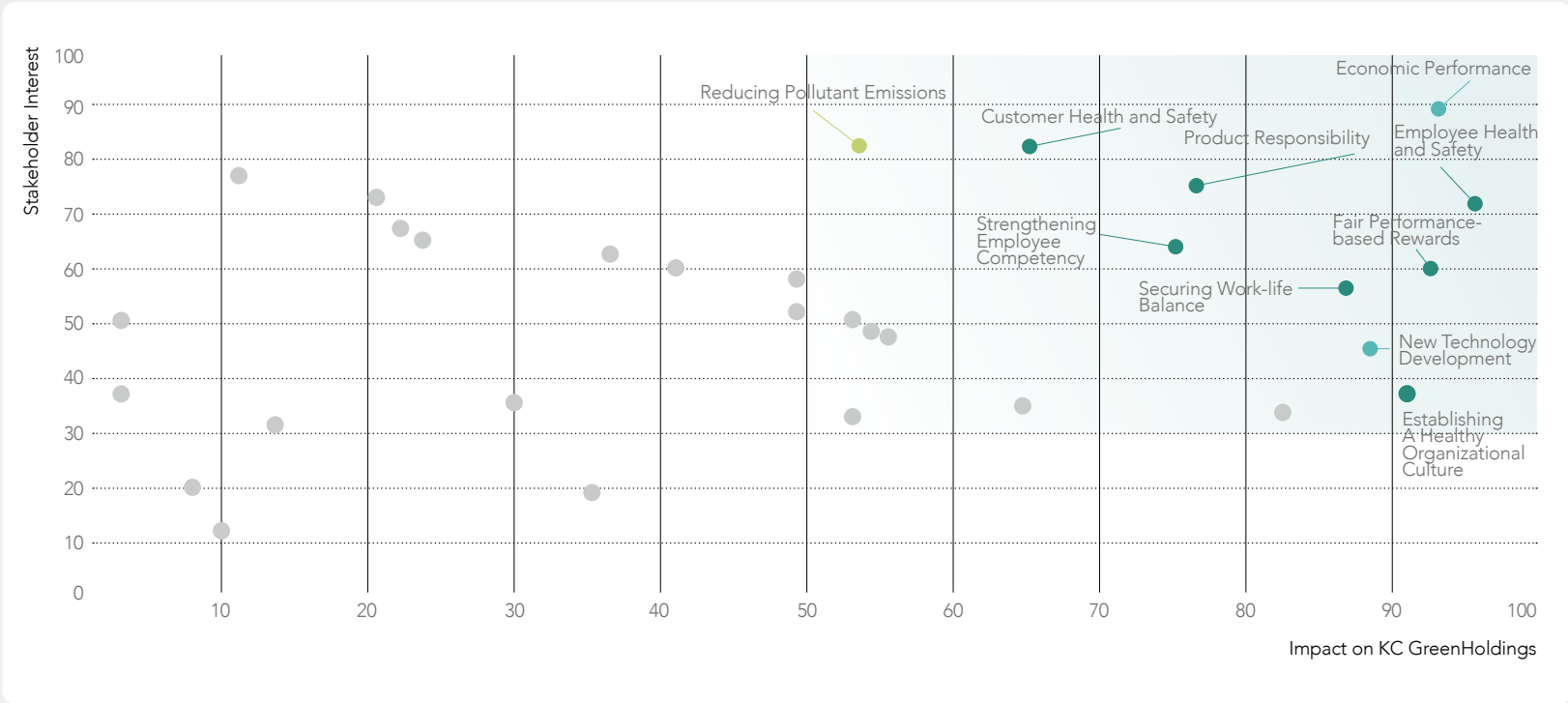
Stakeholder interest We identified stakeholders’ interest levels by analyzing the results of the survey conducted with the stakeholders of KC GreenHoldings and its affiliates, as well as the GRI Standards and ISO 26000. According to the analysis results, among the sustainable management activities of KC GreenHoldings and its affiliates, the respondents were most interested in Economic Performance, Customer Health and Safety, Reducing Pollutant Emissions, Mutual growth with partners, and Product Responsibility.

Impact on KC GreenHoldings We conducted a materiality survey involving our employees to identify which sustainable management topics influence the businesses operated by KC GreenHoldings and its affiliates. As a result, topics such as Employee Health and Safety, Economic Performance, Fair Performance-based Rewards, Establishing A Healthy Organizational Culture, and New Technology Development were on the list of priorities.

The 2020 Sustainability Report selects and reports the top 10 topics by aggregating the stakeholder interest and impact on KC GreenHoldings.

Top 10 Material Topics

Rank	Material Topic	Year on year	Report page	Related stakeholder	GRI Aspect	SDGs
1	Economic Performance	-	24, 25	Stockholder/Investor	Economic performance	
2	Employee Health and Safety	▲4	34	Employee	Occupational Health and safety	8
3	Fair Performance-based Rewards	▲5	33	Employee	-	
4	Product Responsibility	▼2	34	Customer	Marketing and labeling	
5	Customer Health and Safety	▲5	35	Customer	Customer Health and Safety	
6	Securing Work-life Balance	▲2	33	Employee	-	
7	Strengthening Employee Competency	NEW	32, 33	Employee	Training and education	4
8	Reducing Pollutant Emissions	▼5	4-9, 29	Local Community	Energy, Emissions, Effluents and Waste	12
9	New Technology Development	NEW	26	Stockholder/Investor	-	9
10	Establishing A Healthy Organizational Culture	NEW	33	Employee	-	



Analysis of Material Topics As a result of the 2020 Materiality Assessment, Economic Performance was the most material topic following the same in 2017, 2018, and 2019. Additionally, Employee Health and Safety, Fair Performance-based Rewards, Product Responsibility, Customer Health and Safety, Securing Work-life Balance, and Reducing Pollutant Emissions were selected as material topics for the second year in a row. As new material topics, Strengthening Employee Competency, New Technology Development, and Establishing A Healthy Organizational Culture made a list. Specifically, in line with growing social attention to work-life balance and the increasing demand for and awareness of a healthy organizational culture and welfare, Fair Performance-based Rewards and Securing Work-life Balance were selected as the third and sixth topics, respectively, five and two steps up from the previous year. Besides, Establishing a Healthy Organizational Culture was chosen as a new material topic. Strengthening Employee Competency and New Technology Development were presumably selected as new topics due to the need for developing future growth engines in response to the emergence of new businesses and the rapidly changing business environment in the wake of the fourth industrial revolution.

STEP 4 Reporting of Material Topics

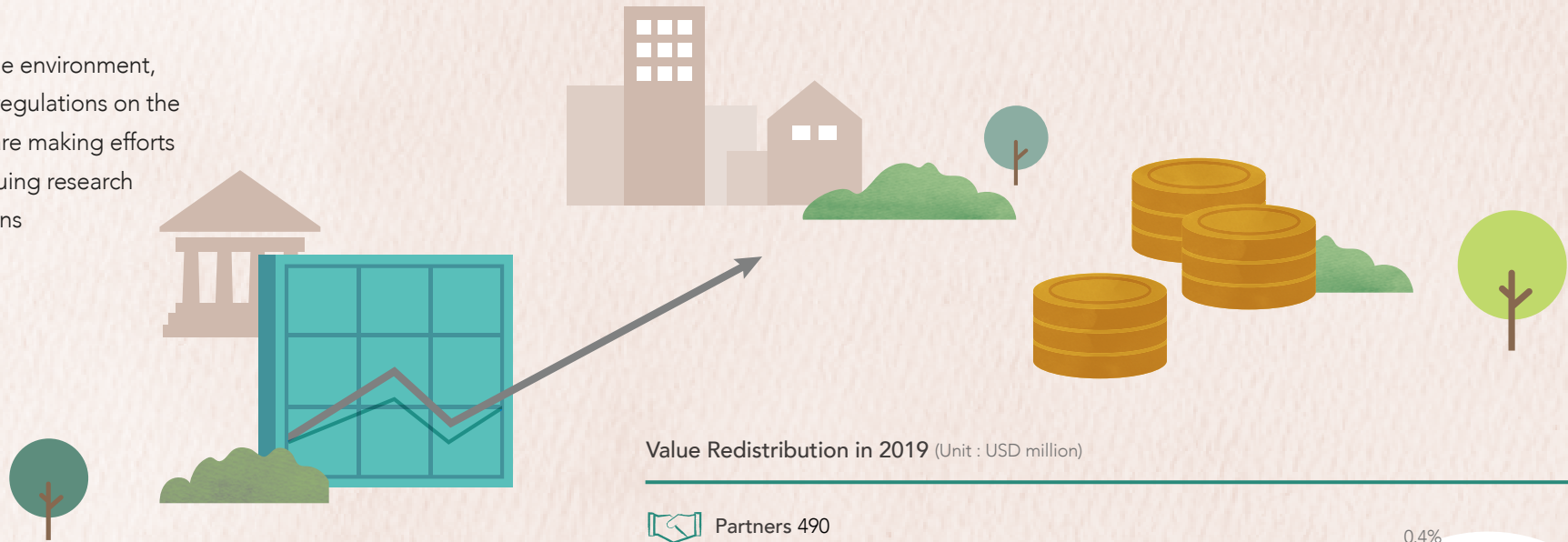
The executives of KC GreenHoldings reviewed the results of the materiality assessment.

01 ECONOMIC RELIABILITY



MANAGEMENT APPROACH

In line with growing worldwide attention to the environment, the government is tightening environmental regulations on the industry. KC GreenHoldings and its affiliates are making efforts to distribute values to stakeholders by continuing research and investment to respond to these regulations and resolve various environmental problems.



KEY FIGURES

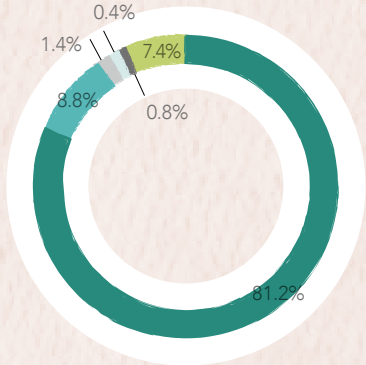
Value Creation in 2019 (Unit : USD million)

Sales		Net Income	
2017	329	2017	9
2018	478	2018	17
2019	604	2019	12
Assets		Stockholders' Equity	
2017	485	2017	232
2018	600	2018	256
2019	705	2019	254

* For understanding, the values were calculated in USD based on the exchange rate for each year.
To see the exact amount in KRW, refer to the financial information(31-33p) in the Appendix.

Value Redistribution in 2019 (Unit : USD million)

- Partners 490
- Employees 53
- Government 8
- Local Communities 3
- Stockholders/Investors 5
- Other 45



Financial Assistance
Received from Government
(Unit : USD thousand)

855

Percentage of Senior
Managers Hired Locally
(Average of Affiliates)

46.4%

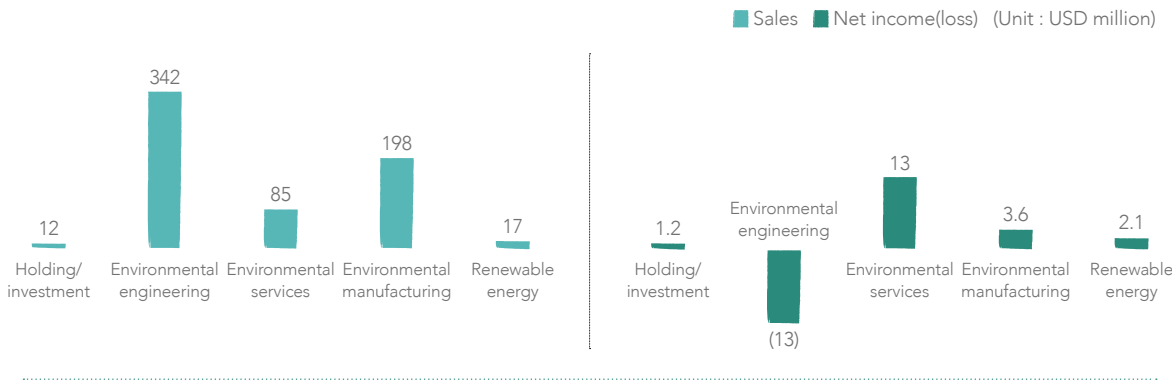
Proportion of Spending on
Local Suppliers
(Average of Affiliates)

90%

ECONOMIC
RELIABILITY

ECONOMIC PERFORMANCE

KC GreenHoldings and its affiliates create values by working on resolving environmental issues caused by human activities and creating a sustainable Earth. As a result, we achieved 604 million dollars in sales and 12 million dollars in net income last year based on a consolidated basis. For sales and net income by the business unit, we reached 12 million dollars and 1.2 million dollars in the investment unit, 342 million dollars and -13 million dollars in the environmental engineering unit, 85 million dollars and 13 million dollars in the environmental services unit, 198 million dollars and 3.6 million dollars in the environmental manufacturing unit, and 17 million dollars and 2.1 million dollars in the renewable energy unit. Sales and net incomes by the business unit include the value of transactions between affiliates, and the sums can differ from consolidated basis sales and net income.



KC GreenHoldings and its affiliates kept investing and expanding the business in 2019 as well to tackle more environmental problems. KC Cottrell established KC Cottrell Engineering Service in India to enhance its competitiveness in the field of engineering in the global market. Additionally, KC EnviroServices acquired KC Bio Resources to treat food waste in an eco-friendly manner, and KC Glass & Materials established KC Glass Resources to raise the recycling rate of waste glass bottles and smoothly be supplied with cullet.

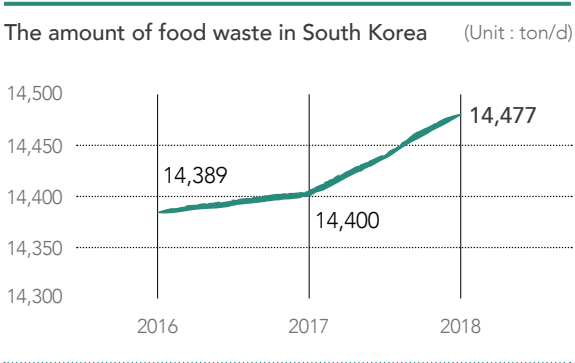


Establishment of KC Cottrell Engineering Service In April last year, KC Cottrell established KC Cottrell Engineering Service in Chennai, India, to provide competitive engineering services to its affiliates in the environmental engineering business unit and cultivate specialized engineers. As the engineers of KC Cottrell Engineering Service have experience in

engineering various products besides electrostatic precipitators, which is its primary product, they are expected to play a significant role in product diversification in the future. Moreover, KC Cottrell Engineering Service sets out to make inroads into diverse markets and gradually expand its business areas, including collaboration with new partners.

Acquisition of KC Bio Resources

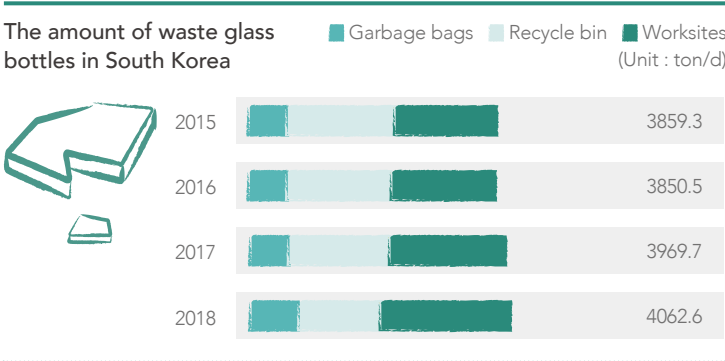
With increases in population and single-person households, and the growth of dining culture, the amount of food waste generated is increasing year on year. According to the Ministry of Environment statistics, South Koreans wasted 14,477 tons of food each day in 2018. About 97% of food wastes are recycled into feed, fertilizers, and biogas.



KC Bio Resources, which was acquired by KC EnviroServices in April last year, is producing quality compost by processing food waste with the aerobic method. The products of KC Bio Resources, which undergoes quality testing according to the Fertilizer Control Act, are eco-friendly, which also helps improve the quality of the soil. Notably, the company has a technology that can reduce foul odors generated during the drying process by over 90% through high-temperature combustion, and thus is expected to relieve residents around the company from inconveniences caused by the waste treatment process.

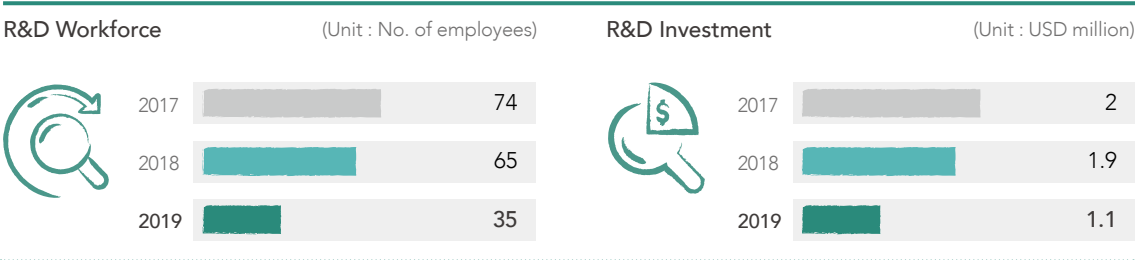
Establishment of KC Glass Resources Among the types of waste discharged from households and business sites in South Korea, waste glass bottles amount to about 4,000 tons each day. The amount is increasing as reduced use of plastics and increased use of eco-friendly materials. Discharged waste glass bottles are treated by refill, incineration, and recycling. Of these methods, KC Glass & Materials is facilitating the reuse of waste glass bottles by using cullet for about 87% of its raw materials in the manufacture of glass bottles.

ECONOMIC
RELIABILITY



glasses, such as white, brown, and green, and then supplies them to KC Glass & Materials and other glass bottle manufacturers. Moreover, the company plans to grow as a general waste recycling business that minimizes waste and prevents contamination by supplying recyclable wastes, such as iron scrap, nonferrous metal, and plastic generated from the glass sorting process to recycling companies.

NEW TECHNOLOGY DEVELOPMENT



KC Cottrell

R&D projects by KC Cottrell in 2019

Project Name	18	19	20	21	22	23
Improvement of 10MW scale Dry-Sorbent CO ₂ Capture Technology and Development of 50 ton/day-scale CO ₂ Liquefaction Technology						
Development of the electrostatic precipitator system						

Last year, KC Glass & Materials established KC Glass Resources to be supplied with waste glass and increase the recycling rate of waste glass bottles. KC Glass Resources filters out foreign substances from collected waste glasses, sorts the resulting glasses into different types of waste

Development of the electrostatic precipitator system KC Cottrell participates in the project for Development of electrostatic precipitator system, which is sponsored by the Korea Institute of Machinery and Materials. This project aims to reduce the exposure of subway passengers to fine dust in moving zones, and the project period is from April 2019 to December 2023. The researchers will improve old air-conditioning and ventilation systems. Also, they will develop not only dust collectors that consume less energy; otherwise, most of the heating and air-conditioning facilities demand have high energy consumption levels but also a connected artificial intelligence (AI)-based technology to estimate the amount of fine dust. This project can draw significant attention as a solution to respond to the government’s plan for improving air quality in the subway.

Establishment of In-house Venture Company KC Glass & Materials established the in-house venture company, Deozon Material Co., Ltd, based on the research of development of the oxide materials and components and application systems, which was completed in 2018. As the only domestic company that has patents and melting technologies to produce the basic materials of optical glass, Deozon Material aims to secure its position in the domestic market by localizing the materials and shortening the manufacturing process, thereby enhancing the economic efficiency of optical glass products.

New Patents

Patent Name	Owner	Registration Date	Registration Number
High Efficiency Wet Scrubber	KC Cottrell	2019.07.12	10-2001655
Filter Bag Assembly for Dust Collector	KC Air Filtertech	2019.02.18	10-1951465
Method for Improving Removal Rate of Dry Type Process		2019.04.30	10-1975909
Filter Cloth Cleaning Device for Filter Bag of Dust Collector		2019.09.04	10-2020201
A pneumatic conveying system utilizing a pressured hopper with intermittent volumetric feed control	Nol-Tec Systems	2019.02.19	10207878
Eco-friendly and High Early Strength Solidifying Composition Using Supercritical Fluidized Bed Combustion Boiler Flyash	KC GreenMaterials, WITHMTECH	2019.09.18	10-2024579
Micro Fine Particle Grout Composition and Soil Grouting Method Using the Same		2019.09.18	10-2024583
The Method of Melt Treatment the Copper-Iron Alloy	KC Glass & Materials	2019.03.29	10-1965768

THINK THE GREEN

ECONOMIC
RELIABILITY

FINANCIAL IMPLICATIONS AND OTHER RISKS AND OPPORTUNITIES
DUE TO CLIMATE CHANGE

As the business portfolios of KC GreenHoldings and its affiliates are comprised of environment-related businesses, climate change acts as both risk and opportunity factors in close connection with our companies.

Risks

Risk Factors	Management	Expenditure
Given the global trend that coal-fired power plants are gradually reduced or shut down, our affiliates in the environmental engineering business unit are steadily losing their business opportunities since they provide the main products such as electrostatic precipitators with the coal-fired power plant.	KC Cottrell and other affiliates are widening their markets by developing products applicable for vehicles whose primary energy source is fossil fuels, such as ships, subways, and cars.	
Annual average rainfall drops reduce the yields of underground water and possibly increase harmful substances, which affects the use of water of KC Glass & Materials.	KC Glass & Materials uses underground water after removing its hazardous substances by repairing underground water softeners and purchasing solar salt for water softening.	Repair cost : 8,500 dollars
Extreme weather affects the health conditions of workers, and increasing healthcare spending for employees is one of the risk factors arising from climate change.	KC Glass & Materials is paying closer attention to employee health management through efforts such as increasing welfare spending for their healthcare and repairing and increasing air-conditioning facilities.	Welfare cost : 2,200 dollars Repair of air-conditioners and sanitary facilities : 150 thousand dollars

Opportunities

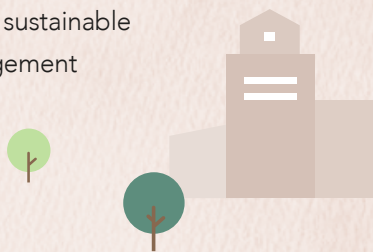
Risk Factors	Management	Expenditure
KC Cottrell's technologies that can mitigate climate change (e.g., CO ₂ capture) are expected to become highly popular.	KC Cottrell is researching to commercialize these technologies.	R&D cost : 52 thousand dollars
The growing use of glass materials following restrictions on the use of disposal goods works as an opportunity factor to KC Glass & Materials that is supplying eco-friendly glass bottles.	KC Glass & Materials plans to promote the eco-friendliness of glass bottles more actively.	Association fees for building networks : 2,200 dollars

02 ENVIRONMENTAL SOUNDNESS



MANAGEMENT APPROACH

As global environmental specialists, KC GreenHoldings and its affiliates are responsible for caring about environmental issues and upholding environmental soundness. We are not only doing our businesses to make environments sustainable but also striving to practice environmental management and minimize potential negative environmental impacts stemming from our business activities.

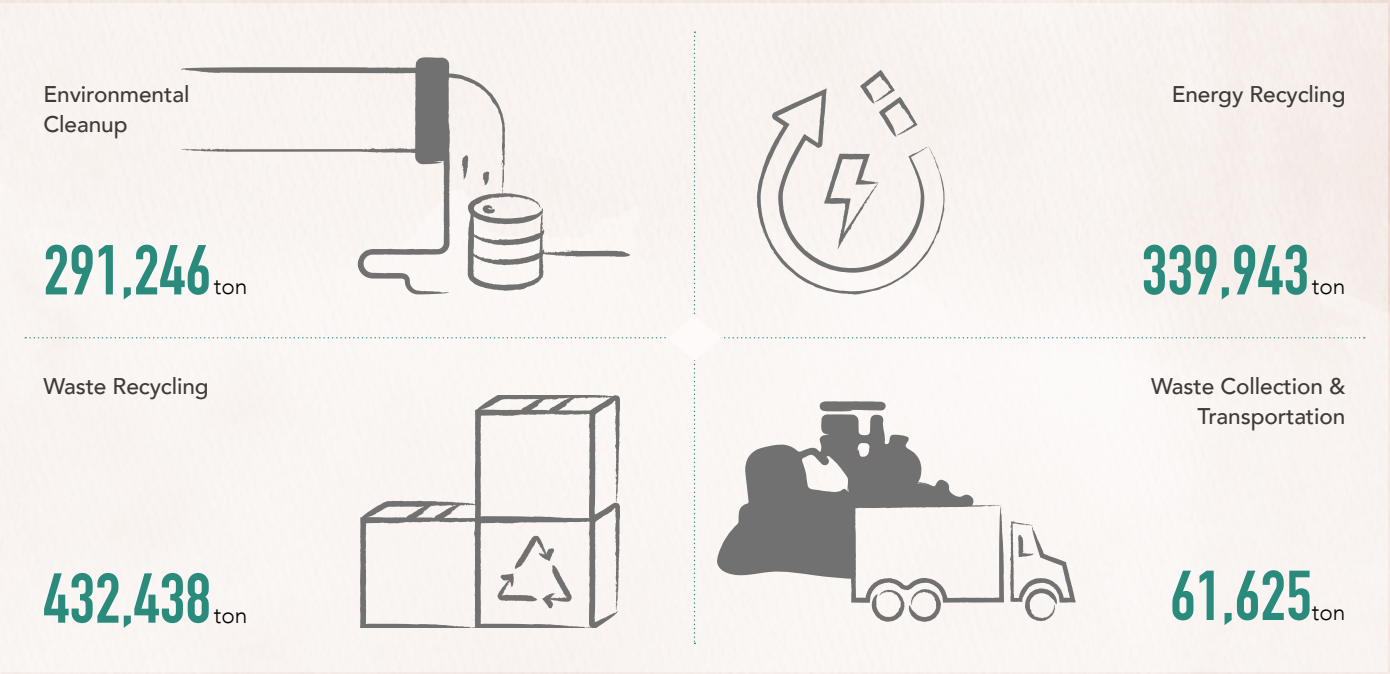
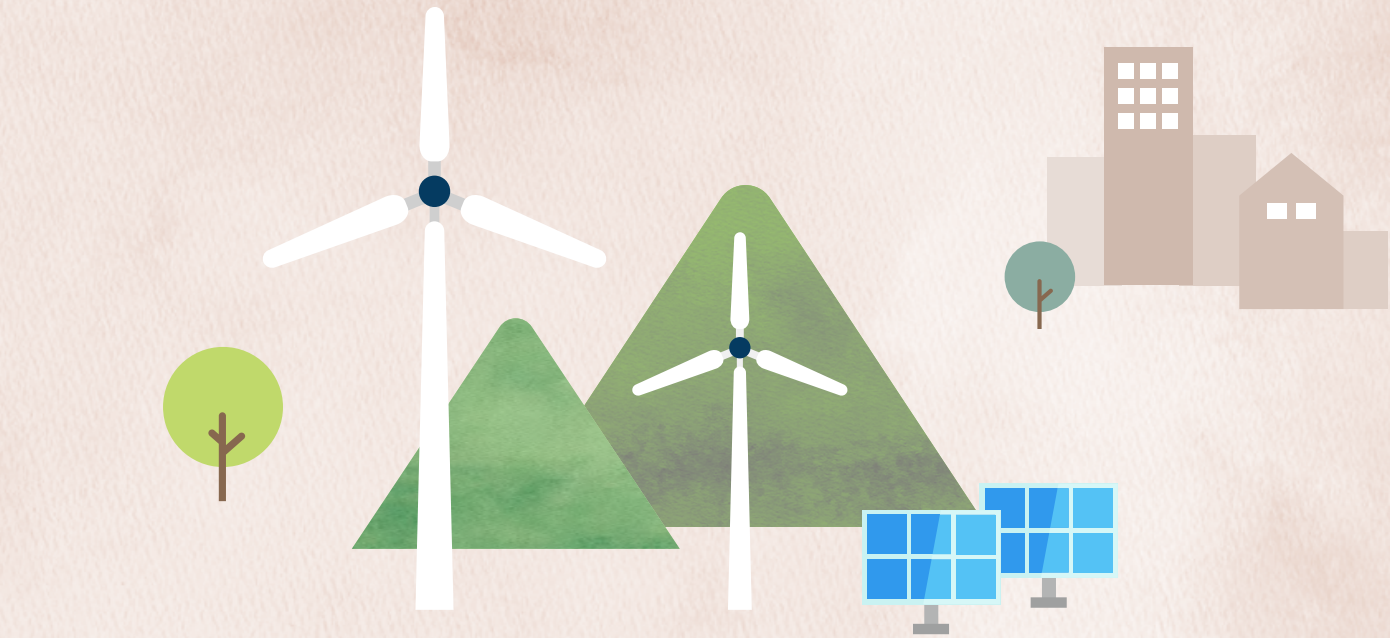


KEY FIGURES

Environmental Impacts in 2019

Category			Other			
Materials	Non-renewable raw materials	14,781 ton	Share of renewable raw materials	96.6%		
	Renewable raw materials	420,670 ton				
Energy	Fuel energy	346 TJ	Share of renewable energy consumption	0.2%		
	Renewable energy	2 TJ				
	Electric energy	624 TJ				
Water	Surface water	16,355 ton	Share of recycled water	25.9%		
	Ground water	103,077 ton				
	Rainwater	30,993 ton				
	Municipal water	174,818 ton				
GHG emissions	Direct (Scope 1) GHG emissions	307,524 tCO ₂ eq	GHG emissions intensity ratio	1.05 tCO ₂ eq/KRW million		
	Indirect (Scope 2) GHG emissions	26,776 tCO ₂ eq				
Air pollutant emissions	NOx	172 ton				
	SOx	55 ton				
	VOCs	0.2 ton				
	PM	7 ton				
Water pollutant emissions	COD	94 mg/l				
	BOD	23,986 mg/l				
	T-N	141 mg/l				
	T-P	8 mg/l				
Effluent		56,222 ton				
Waste		66,671 ton			Waste recycling rate	6%

Environmental Performances in 2019



* Environmental cleanup : The total amount of incinerated domestic, food, general, and specified wastes and treated waste oil and water.
* Energy recycling : The total amount of recycled steam generated from waste incineration
* Waste recycling : The total amount of recycled waste to produce solid fuels or recycled waste glass and articles

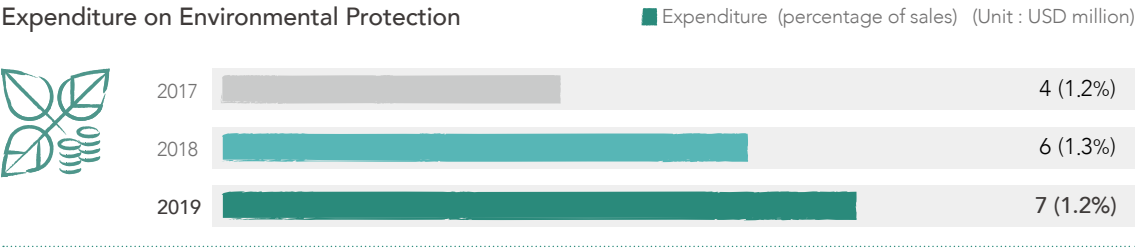
ENVIRONMENTAL
SOUNDNESS

ENVIRONMENTAL MANAGEMENT

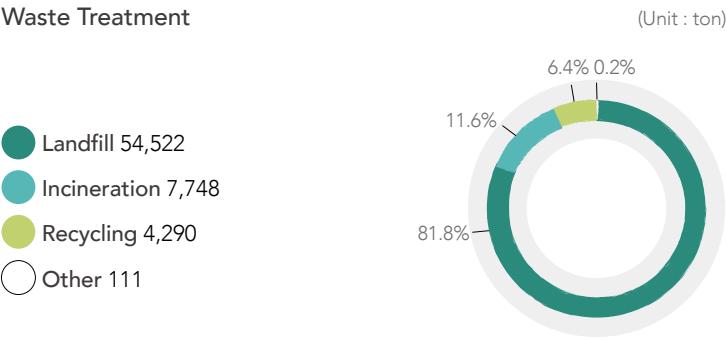
Environmental Management Seven affiliates of KC GreenHoldings have set up environmental management plans based on environmental guidelines by obtaining the environmental management certificate ISO14001 and continued to improve the environment through the management’s review and control systems. Last year, KC GreenHoldings and its affiliates spent about 7 million dollars to protect the environment. Most of the expenditure was used to dispose of and treat industrial wastes, as well as for the purchase equipment and medicines and environmental cleanup to prevent environmental contamination.

The List of 7 Companies with the ISO 14001 Certification

KC Cottrell, KC Envirotech E&C, KC EnviroServices, KC Bio Resources, KC Glass & Materials, Clestra Hauserman SA, Clestra Hauserman
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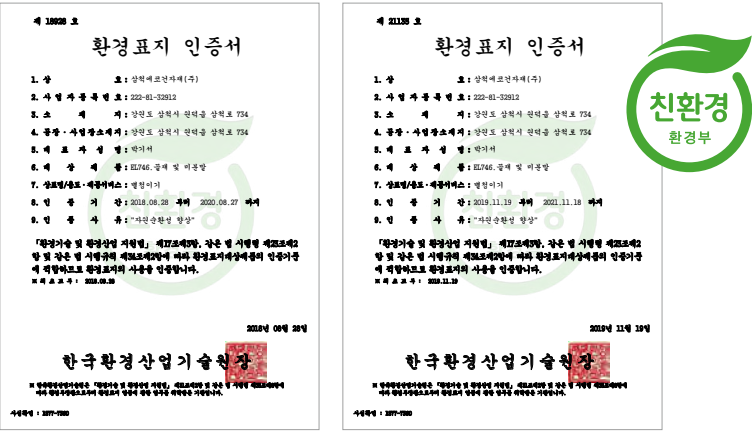


Waste Management In 2019, the total amount of wastes generated by KC GreenHoldings and its affiliates reached up to 66,671 tons. Of the amount, 54,522 tons were landfilled because they were not reusable or recyclable as the final debris remaining after waste incineration at KC EnviroServices. For the remaining 7,748 tons, 4,290 tons were incinerated and recycled respectively, and 111 tons were treated with other methods.



Minimization of Environmental Impacts KC GreenHoldings and its affiliates also work to minimize the negative environmental impact arising from business activities. KC Cottrell cut its annual energy consumption by 15% using an ESS. Nol-Tec Systems is expecting an around 60% reduction in energy use by replacing fluorescent bulbs with LED bulbs to save electric energy. Also, KC Glass & Materials has contributed to waste reduction by saving 50 thousand dollars of the cost of buying packing materials by recycling wood and PVC pellets used for stocking raw materials. The company also promoted the circulation of resources by increasing the usage rate of waste glass, which is used as raw materials in the manufacture of glass bottles, from 87.1% to 87.5%. KC Solar&Energy reduced the number of disposable paper cups, sticks, etc. used in the office by 3% over the previous year by replacing them with multi-use items.

Environmental Evaluation of Products KC GreenMaterials conducted an analysis of the soil contamination process of eco-aggregates and SEM (Samcheok Eco Materials) fine aggregates by commissioning Korea Conformity Laboratories. As a result, both products were certified for their contribution to improving the recycling of resources, thereby obtaining the eco-labeling certification.



* Eco-labeling certification : If a product has improved its environmental performance (the levels of environmental impacts, such as pollutant or GHG emissions in the entire process from the manufacture to the consumption and disposal and the levels of resource and energy consumption), the product is permitted to attach eco-labeling to itself.

Environmental Evaluation of Suppliers Lodge Cottrell performs an environmental evaluation when selecting new suppliers. There were no new suppliers in 2019, and thus it conducted no environmental assessment on the suppliers.

THINK THE GREEN

ENVIRONMENTAL
SOUNDNESS

ENVIRONMENTAL IMPACTS

GHG Emissions KC EnviroServices and KC Glass & Materials manage GHG emissions in accordance with the Basic Act on Low Carbon Green Growth. The main causes of GHG emissions at KC EnviroServices are waste incineration, waste transporting vehicles, and electricity use at worksites. Last year, the company’s permissible and actual emissions of GHG were 262,980tCO₂eq and 303,150tC₂eq, respectively. KC Glass & Materials mostly generates GHG in the process of melting the raw materials of glass bottles. Also, power facilities used in the company’s workplace are a secondary source of GHG emissions. Last year, KC Glass & Materials was permitted to discharge 28,332tCO₂eq of GHG, but its actual emissions reached 30,449tCO₂eq. The company plans to manage excess GHG emissions by employing an emission trading system. For GHG generated from electricity use in the workplace other than those inevitably resulting from incineration or the melting of raw materials, the company is trying to minimize their emissions with efforts such as a power consumption reduction of 1,362kwh over the previous year by adjusting system operating hours during peak hours.

GHG emission in 2019



Compliance The Changwon division of KC EnviroServices resumed a work-training course for collection and transport workers after paying a penalty of 18,600 dollars last year for violating the obligation to submit reports under Article 60 of the Enforcement Rules of the Waste Management Act and not attaching waste collection and transport cards to their vehicles under Article 14 of the Enforcement Rules. The Jeonju division of KC EnviroServices paid a penalty of 2,800 dollars for the poor management of old facilities and failing to conduct self-measurement. Following this, the company has prevented recurring violations of environmental laws by replacing its aged facilities and self-measurement contractor. KC Bio Resources paid 2,100 dollars for breaching the Waste Management Act and the Air Quality Conservation Act. Since then, the company has been working to prevent the recurrence of violations through regular inspections and tighter control of facilities with oil micro-leak-ages. No other affiliates paid the penalty or were subjected to disciplinary measures for violating environmental laws and regulations

Total amount of penalties in 2019

\$ **23,500**

03 SOCIAL RESPONSIBILITY



MANAGEMENT APPROACH

It is our responsibility as a corporate citizen to communicate with stakeholders of KC GreenHoldings and its affiliates and solve related issues. KC GreenHoldings and its affiliates recognize employees’ self-improvement and growth, product quality management for customers, mutual growth with corporate partners, and coexistence with local communities as our primary social responsibilities, and continue our efforts to resolve and remedy related issues.



KEY FIGURES

Total number of employees		Donations		(Unit : USD thousand)
2017	1,218	2017	198	(0.06%)
2018	1,810	2018	238	(0.05%)
2019	1,826	2019	292	(0.05%)

		Female	Male
Total number of employees		275	1551
Hiring		53	265
Turnover/Retirement		73	217
Parental leave	Number of employees who had parental leave	10	7
	Number of employees who returned to the workplace from parental Leave	5	5
Training hours per person		19	23

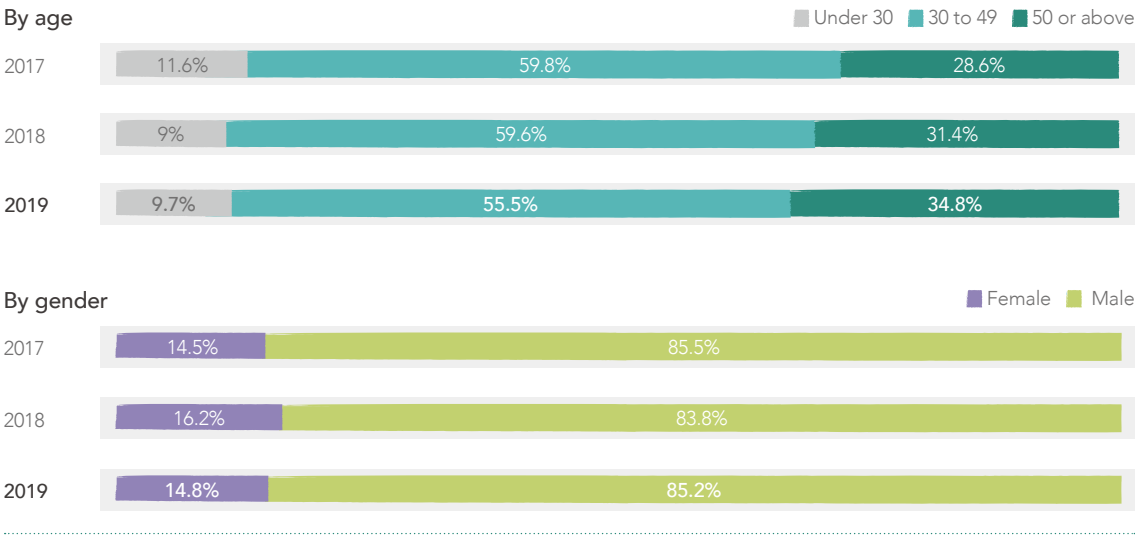
SOCIAL RESPONSIBILITY

EMPLOYEES

HIRING

KC GreenHoldings and its affiliates are fairly evaluating applicants in recruiting employees regardless of gender, religion, or nationality. As of December 31, 2019, the total number of employees working for KC GreenHoldings and its affiliates is 1,826 without notable increases or decreases over the previous year. When it comes to the composition of employees by gender and age, they comprise 1,551 men and 275 women, and 178 people aged under 30, 1,013 people aged 30 to 49, and 635 people aged 50 or above. There were no particular points found in the gender-based composition ratios. In terms of age, however, the proportion of employees aged 50 or above has steadily increased since 2017. Accordingly, KC GreenHoldings is examining measures to improve its organizational culture, working conditions, and educational contents to prepare itself for the era of accelerating population aging.

Composition of Workforce in 2019



STRENGTHENING EMPLOYEE COMPETENCY

As emphasizing in the mission, KC GreenHoldings and its affiliates consider the self-improvement and growth of employees as the principal activities. KC GreenHoldings manages employees' training based on its training system for career and competency of employees.

KC training system

Category	Education per rank			Job competence education	Self development education	Enterprise education				
Officer	Education on KC Core values	Education on new employee	KC Comradeship Project	New officer course		Language training	Training for professional certificate	Sexual harassment prevention education	Personal information protection education	Vocational competency development training for persons with disabilities
Team head				Training for next executives						
Senior				Education on senior promotor						
Manager				Education on manager promotor						
Assistant manager				Education on assistant manager promotor						
Employee				Strengthening new employees competency						

KC Comradeship Project Although KC Academy opened in 2018 to provide employees with more educational opportunities, employees who joined it remained about 19.3% of the total employees last year. As critical reasons for the low levels of participation in KC Academy, employees cited inadequate educational content and still little awareness of the need for education. Based on this feedback, KC GreenHoldings is set to diversify educational materials related to duties/positions and has implemented the collective education initiative “The KC Comradeship Project” targeted at new employees since last year to stress the necessity and the importance of education. In total, 88 employees from nine affiliates participated in the KC Comradeship Project held twice. Chairman Taeyoung Lee emphasized the importance of self-improvement and training toward the employees by explaining KC’s mission, vision, and core values. The participants responded to satisfaction survey of the program with 4.6 out of 5.



The KC Comradeship Project in 2019

Conducted 2 Times	Participation of 9 Affiliates	Participation of 88 Employees	Lv. of satisfaction 4.6/5
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SOCIAL
RESPONSIBILITY

KC Executives Workshops In April each year, the executives of KC GreenHoldings and its affiliates located in South Korea in director or higher-level positions have time to form a network by introducing new companies and executives, take lectures related to management trends, and cultivate leadership. Following the 2018 workshop, in 2019, they attended lectures on the nature of the fourth industrial revolution and response strategies under the theme of “KC’s future strategic directions for the fourth industrial revolution,” shared the previous year’s performance and causes of success and failure in the affiliates’ strategic decision-making, and learned successful leaders’ business styling.

SECURING WORK-LIFE BALANCE

KC GreenHoldings and its affiliates comply with employees’ legally stipulated work hours and ensure private lives separate from work hours through various systems so that they would realize a balance between work and life.

Flexible Work Hours System KC GreenHoldings and some affiliates are implementing a flexible work hour system that allows employees to alter their starting time between 8 and 10 am, and applying the 8 am to 5 pm work system on Fridays. We hope this system can promote the efficient use of their time outside of regular work hours.

Parental Leave KC GreenHoldings and its affiliates are encouraging both female and male workers to use maternity/parental leave. In these companies, ten female and seven male workers took maternity/parental leave in 2019, and five female and five male workers returned to work in 2019 after using maternity/parental leave.

Promoting Activities between Colleagues KC GreenHoldings has employees join staff dinners with advance notice and replaces the conventional dinners for promoting fellowship with activities. Moreover, the company actively recommends its affiliates to adopt dinners with activities during which workers enjoy activities together to create a casual and conversation-centered dining atmosphere instead of drinking.

HEALTHY ORGANIZATIONAL CULTURE

KC GreenHoldings strives to create a healthy organizational culture based on its core values, leadership by everyone, open communication, mutual respect.

Human Rights and Non-discrimination KC GreenHoldings specifies in its code of ethics that the unreasonable discrimination of employees, customers, and stakeholders should be prohibited for any reason, and the human rights of every member should be respected. Following the

enforcement of the Workplace Harassment Prevention Law in July last year, we have banned any act of harassment between employees within the organization through its employment rules. To create an organizational culture of mutual respect without discrimination, it has also created mandatory education courses for worker in KC Academy so that all employees can complete units such as sexual harassment prevention education and disability awareness education. In 2019, there were no sexual harassment or discrimination cases among KC affiliates and KC GreenHoldings.

Ethics Education KC GreenHoldings is strengthening employees’ commitment to being ethical as members constituting KC by training them in the KC code of ethics at the KC Comradeship Project, which has been implemented since 2019 and obtaining the signatures of participants in the project.

KC Code of Ethics	
Chapter 1. Employees’ Basic Attitudes	Knowledge and attitudes required as employees in the course of understanding our mission, vision, and core values and achieving them
Chapter 2. Fairtrade, Fair Competition	An attitude of not engaging in corruptive acts such as embezzlement and misappropriation about one’s duties and joining market competitions fairly and confidently while seeking mutual growth with corporate partners
Chapter 3. Responsibilities for Customers and Stockholders	A sense of responsibility that one will provide better values to customers and stockholders through management innovation and efficient management
Chapter 4. Social Responsibility	An intention to recognize our needs and tasks for economic, social, and environmental responsibilities to realize sustainable management and accomplish this goal
Chapter 5. Application of the Code of Ethics	Objectives and targets of the code of ethics

FAIR PERFORMANCE-BASED COMPENSATION

KC GreenHoldings and its affiliates conduct a performance evaluation once or twice a year for all employees except those whose length of service is less than one year (The number of performance evaluations differs by an affiliate). An employee’s performance combines an initial self-evaluation with his/her team leader’s approval and evaluation, and the evaluation results are reflected in their bonus.

Introduction of e-HRM KC GreenHoldings has evaluated and managed employee performance online by adopting the e-HRM system in the latter half of 2019. This system has the advantage of not only preventing the loss of data related to performance evaluations but also helping human resources personnel to manage their work more conveniently through data accumulation. We expect that the e-HRM system increases work efficiency in human resources personnel as a tool for interviews and personnel management as well as performance evaluations, and makes personnel management more systematic and convenient with the growing adoptions of other affiliates.

SOCIAL
RESPONSIBILITY

EMPLOYEE HEALTH AND SAFETY

Given the nature of KC GreenHoldings and its affiliates that manufacture industrial facilities and treat waste through incineration or pulverization, employees are more frequently exposed to accidents. For this reason, we perceive health and safety issues as primary risks.

Health and Safety Accidents Last year, one industrial accident occurred in each of KC Glass & Materials (a fall from the scaffold), and KC EnviroServices (a minor collision at the worksite), but without casualties.

Health and Safety Council KC affiliates are set up the Health and Safety Council comprised of health and safety managers to manage the issues at a companywide level. To prevent industrial accidents in advance, it shares the latest health and safety issues at its regular meetings and conducts specialized training on health and safety management if necessary.

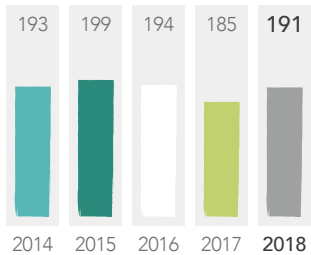
The Health and Safety Council’s Activities in 2019

Category	Major Agendas
1st (August 23, 2019)	<div>① Introduction to KC EnviroServices</div> <div>② Lectures on how to manage work stress</div> <div>③ Sharing each affiliate’s performance in comparison with its plan for health and safety activities</div> <div>④ Information on the 2019 Health and Safety Council Workshop</div>
2nd (December 5 to 6, 2019)	<div>① Sharing each affiliate’s performance in comparison with its plan for health and safety activities</div> <div>② Discussion on the base date following the repeal of regulations related to no accident</div> <div>③ Sharing the 2019 schedule for the safety and health evaluations of affiliates</div>

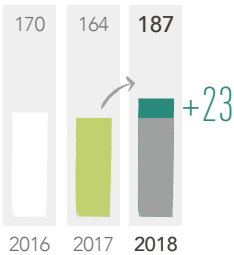
Health and Safety Evaluation KC GreenHoldings evaluates KC affiliates’ health and safety activities in the previous year through an audit and selects and awards outstanding companies. We review five items of accident rates, training, site inspections, activities, and systems on a maximum of 200 points. The grand prize winners for the year 2019 were KC Glass & Materials that had steadily maintained high scores and Yuyang Technologies that showed the highest growth over the previous year.

Evaluation result

KC Glass & Materials



Yuyang Technologies



Health and Safety Training Among the affiliates of KC GreenHoldings, 12 domestic operations mandated to provide industrial health and safety training are conducting supervisor training and occupational health and safety training in addition to the monthly safety training. Specifically, KC Eco Logistics has made efforts to create a safe working environment by conducting joint fire drills with fire stations during the winter when the frequency of fires is typically high.



Health and Safety Certifications

KOSHA 18001	5 companies (KC Cottrell, Yuyang Technologies, KC EnviroServices, KC Glass & Materials, Clestra Hauserman)
OHSAS 18001	5 companies (KC Cottrell, Changchun KC Envirotech, KC Envirotech E&C, KC EnviroServices, Clestra Hauserman SA)
ISO 45001	1 company (Lodge Cottrell)
Risk assessment certification	3 companies (KC Cottrell, KC Air Filtertech, KC EnviroServices)

CUSTOMER



PRODUCT RESPONSIBILITY

Fifteen affiliates of KC GreenHoldings are ensuring the quality of their products and services throughout the entire process ranging from production to supply by acquiring the ISO 9001 certification. KC Cottrell gains the approval of customers on instructions for the safe use of products and their

SOCIAL RESPONSIBILITY

substances that influence the environment and society by using vendor prints and also provides product information by attaching nameplates to products. NWL Pacific has produced and distributed a manual on how to use power supplies. In 2019, KC affiliates did not commit any violations of laws and regulations on product and service information or their self-imposed regulations.

The List of 15 Companies with the ISO 9001 Certification

KC Cottrell, KC Air Filtertech, Yuyang Technologies, Changchun KC Envirotech, KC Cottrell Vietnam, KC Cottrell India, Lodge Cottrell, NWL Pacific, KC Envirotech E&C, KC EnviroServices, KC Bio Resources, KC Glass & Materials, Clestra Hauserman SA, Clestra Hauserman, KC Solar&Energy

CUSTOMER HEALTH AND SAFETY

In recent years, a series of customer health and safety-related accidents caused by products and services has also increased the demand for health and safety certifications on products and services. Every year, KC GreenHoldings and its affiliates evaluate the health and safety-related impact of their products and services on customers to ensure the safeness and healthiness of products and services and control harmful substances. In 2019, KC EnviroServices completed TMS testing, dioxin testing, air pollutant self-measurements, water quality testing, VOCs/odor measurements, soil contamination testing, and an environmental impact assessment on the surrounding environment, and received favorable results. KC Glass & Materials commissioned Korea Conformity Laboratories to assess the presence of hazardous substances such as lead and cadmium in glass bottles 12 times and passed the assessment with no detection of harmful substances. In 2019, KC affiliates had no cases where their products or services violated laws and regulations or their self-imposed regulations on the impacts of products and services on customer health and safety.

PARTNER

MEETINGS WITH CORPORATE PARTNERS

KC Glass & Materials is pursuing mutual growth with corporate partners from a horizontal relationship. It holds meetings with them at least once a year to strengthen a mutually cooperative system. In 2019, two meetings were held in June and October. Respectively, seven and six partners that were providing raw materials, equipment repair and maintenance services, manufacturing facilities, etc. were present at the meeting. They exchanged information on trends in the supply and demand for raw materials and pricing as well as the overall glass industry and further discussed measures for win-win cooperation. They will continue their efforts to grow into trusted companies through win-win management.

LOCAL COMMUNITY

JOB CREATION

By perceiving the youth unemployment crisis as a social problem, KC GreenHoldings conducts an internship program aimed at helping young job seekers to gain hands-on experience and enhance their understanding of the environmental industry. Though we do not hire interns after the program, we provide interns with employment opportunities when recruiting personnel. The 2019 winter internship program was held for seven weeks between January 7 and February 22, and a total of five interns completed the program. None of the interns was hired as a full-time employee after the program in 2019.

TALENT TRAINING PROGRAM

The environmental industry has recently come into focus as environmental pollution is getting worse, and the government tightens environmental regulations. However, it is difficult to find young talents who will play leading roles in the future due to low awareness of the industry. We believe that it is essential to raise awareness of the environmental business and to train talents to work for companies, which is one of the social responsibilities of environmental enterprises. Last year, KC Cottrell participated in the ‘2019 SEOUL Fine Dust Hackathon’ hosted by the Seoul Metropolitan Government and organized by the Seoul Institute of Technology. As a mentor, the company explained its technologies related to fine dust, giving participants advice on directions and specific measures for fine dust forecasts, measurements, reduction technologies, and policies developed by them.

DONATIONS

\$ 292 thousand	Local Community	Sponsoring regional events
	Social welfare	Helping the poor and the old, sponsoring a charity event
	Education	Sponsoring groups for children’s environmental education, scholarship
	Culture and sports	Sponsoring international sports competitions, sponsoring orchestras
	Environmental conservation	Collecting Waste glass, sponsoring environmental organizations, nature conservation campaigns

ENVIRONMENTAL IMPROVEMENT ACTIVITIES

As a leading environmental company, one of the most important social responsibilities is to improve the environment of polluted communities. KC GreenHoldings conducted beachcombing last year to clean up the shore by picking up sea drifts and garbage after hearing news regarding a sea turtle found dead with eating garbage on the beach of Jeju island in 2018. We will continue such activities to improve the environmental problems of communities by implementing the KC CSR initiative established in 2019.

THINK THE GREEN

Business Introduction

HOLDING/INVESTMENT

WHAT WE SOLVE

KC GreenHoldings switched to a holding company in 2010. With our business portfolio comprised of green environmental businesses, we provide KC affiliates with management consulting services for the KC network's efficient and professional management.



Environmental engineering It prevents air pollution by treating fine dust and GHG generated from various industrial facilities and vehicles.



Environmental services It creates values from wastes by collecting, transporting, and recycling wastes produced from household and industry, and recovering energy.

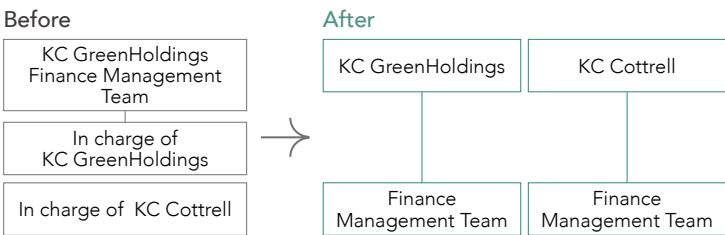


Environmental manufacturing It contributes to resource circulation by manufacturing glass bottles mixed with waste glass or reusable interior materials.



Renewable energy It supports efficient operations by providing services ranging from the installation to the operation of a solar power plant.

KC GreenHoldings

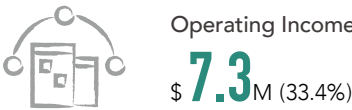
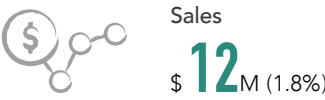


Finance Management Team	Strategy&Management Team	Sustainable Management Team
Accounting management Fund management Tax management	Business portfolio adjustment Performance management Management process improvement	Personnel management General affairs Public relations, Marketing CSR

To manage the financial accounting and risks of affiliates more efficiently, we split the financial management team that had led the combined financial affairs of KC Cottrell and KC GreenHoldings into each company's financial team and reorganized the original workforce in 2019.

KC GreenHoldings consists of three teams : finance management, strategy&management, and sustainable management teams. We promote the KC network's compan wide stable management by providing information on each team's various pending issues with our affiliates.

KEY FIGURES



* The sales and operating income include internal transaction values on individual financial statements.
* The total number of affiliates includes only the subsidiaries of KC GreenHoldings and its grandchild companies on a consolidated basis, which are reported on the 2020 Sustainable Management Report. The number of affiliates in brackets includes grandchild and great-grandchild companies based on the equity method.



ENVIRONMENTAL ENGINEERING

WHAT WE SOLVE

Beginning with KC Cottrell in 1973, the environmental engineering business unit has expanded its market by establishing overseas branches in China, the UK, the US, Vietnam, and India. In 2019, KC Cottrell established KC Cottrell Engineering Service in Chennai, India to provide competitive engineering services to the affiliates in the environmental engineering unit and train professional personnel.

KEY FIGURES

Sales
\$ **342**M (52.3%)

Operating Income
\$ **(2.7)**M (-12.2%)

No. of affiliates
15

No. of employees
815

* Sales and operating income by the business unit include the value of transactions between affiliates.

VALUE CHAIN



Industrial facilities,
vehicles



Engineering



Manufacture and Installation



Operation and Maintenance

CAPACITY

Dust
99% reduction

SOx
90~97% reduction

NOx
85~90% reduction

Organic Compounds
99% reduction



ENVIRONMENTAL SERVICES

WHAT WE SOLVE

The environmental service business unit is broadly classified into the Waste to Energy business that utilizes waste in the form of energy, the Waste to Resource business that processes and sells waste in the type of raw materials, and the Waste Management business that processes waste through landfill or collection and transportation.

In 2019, KC EnviroServices widened its areas of waste treatment by acquiring KC Bio Resources that recycles food waste into fertilizers.

KEY FIGURES

Sales
\$ **85**M (13%)

Operating Income
\$ **5.5**M (25.4%)

No. of affiliates
10

No. of employees
355

AFFILIATES

KC EnviroServices



CEO : Dongho Baek
Est. date : June 2000
KC EnviroServices, which operates in Yeosu, Changwon, and Jeonju, produces steam energy and recycles waste into fuels through the intermediate treatment of various general and designated wastes generated at industrial sites.

Major subsidiaries : KC Landfill Service, KC Catalyst Services, KC EcoCycle, Eumseong Biochips, Seongju Biochips, KC GreenEnergy, KC Bio Resources

KC Eco Logistics



CEO : Junki Kang
Est. date : October 2015
The company engages in waste transportation in the form of collecting wastes and transporting them to waste treatment companies by their characteristics. In July 2019, it launched a waste recycling business by building resource circulation facilities that recycle wastes generated by households and businesses into fuels.

KC GreenMaterials



CEO : Kisuh Park
Est. date : April 2009
The company recycles fly ash generated at power generation plants into concrete admixtures and cement mixtures through hydration and purification processes.



ENVIRONMENTAL MANUFACTURING

WHAT WE SOLVE

KC GreenHoldings made inroads into the environmental manufacturing business unit in 1997 by acquiring Clestra Hauserman that produces prefabrication and interior materials. Since then, we have been contributing to the circular economy by acquiring KC Glass & Materials that produces glass bottles by mixing cullet. In 2019, KC Glass & Materials established KC Glass Resources that filters out foreign substances from waste glasses and sorting the filtered glasses into different colors (white, brown, green, etc.) using cutting-edge optical sorting and crushing lines, and then supplies the cullet to glass bottle manufacturers.

KEY FIGURES

Sales
\$ **198**M (30.3%)

Operating Income
\$ **9.7**M (44.5%)

No. of affiliates
11

No. of employees
609

AFFILIATES

Clestra Hauserman SA



CEO : Vincent Paul Petit
Est. date : 1913 (Share acquisition in April 2018)
Factory : Ilkirch, France
Clestra Hauserman SA is an office design and cleanroom company founded in the United States in 1913, moving to Strasbourg, France, in 1951. The company is preparing to make a great leap forward as a leading eco-friendly partition and clean room company, entering markets in Europe, the Americas, the Middle East, and Asia.
Major subsidiaries : Clestra International, Mecanalu, Clestra USA, Clestra Hauserman Overseas Contracting

Clestra Hauserman



CEO : Gaprae Cho
Est. date : May 1997 (Share acquisition)
Factory : Gumi, South Korea, Taicang, China
Clestra Hauserman, which creates optimized spaces for customers, is an eco-friendly interior specialist that even considers customer health and the global environment by offering products designed to develop interiors by assembling without sawing or using adhesive.
Major subsidiaries : Clestra, Clestra K.K, Clestra (Taicang) Architecture Product

KC Glass & Materials



CEO : Jeongwan Kim
Est. date : June 1971 (Share acquisition in September 2007)
Brown glass containers produced by KC Glass & Materials have high reuse and recycling rates. Therefore, they are not only eco-friendly but also the safest containers that can prevent the alternation of contents by blocking ultraviolet rays. The company also produces advanced raw glass materials, which are light, high-strength, and superior thermal and chemical resistance.
Major subsidiary : KC Glass Resources

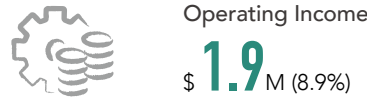
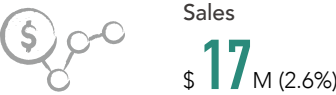


RENEWABLE ENERGY

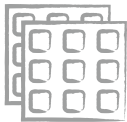
WHAT WE SOLVE

KC GreenHoldings entered the renewable energy business unit by establishing KC Solar&Energy in 2005. KC Solar&Energy installs solar power plants tailored to various sites such as building rooftops, abandoned salt farms, parking lots, and water surfaces. In addition, it offers maintenance services to preserve the functions of our systems and enhance their efficiency. KC SolarEnergy was renamed as KC Solar&Energy in March 2020 as part of the efforts to expand its business scope from the primary solar power business into the overall energy sector.

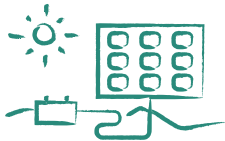
KEY FIGURES



VALUE CHAIN



Production



→ EPC



→ Operation & Maintenance

AFFILIATES

KC Solar&Energy



CEO : Taewoo Kim
Est. date : November 2005
The company installs solar power plants ranging from small household facilities to megawatt-level commercial plants and provides consigned operation and management services on completed solar power plants.

Financial Information

Independent Auditors’ Report

To the Shareholders and the Board of Directors of KC Green Holdings Co., Ltd :

We have audited the accompanying consolidated financial statements of KC Green Holdings Co., Ltd. and subsidiaries (the “Group”). The financial statements consist of the consolidated statements of financial position as of December 31, 2019 and 2018, and the related consolidated statements of comprehensive income, consolidated statements of changes in shareholders’ equity and consolidated statements of cash flows, all expressed in Korean won, for the years ended December 31, 2019 and 2018. And it consists of the summary description and other information about the significant accounting policies.

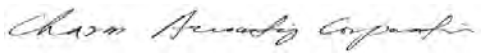
Management’s Responsibility for the Financial Statements The Group’s management is responsible for the preparation and fair presentation of the consolidated financial statements and responsible for internal control relevant to the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the Republic of Korea. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the consolidated financial statements 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 entity’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of KC Green Holdings Co., Ltd. and subsidiaries, as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the year ended in accordance with Korean International Financial Reporting Standards (“K-IFRS”).



March 19, 2020

Notice to Readers

This report is effective as of the auditors’ report date. Certain subsequent events or circumstances may have occurred between the auditors’ report date and the time the auditors’ report is read. Such events or circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to the auditors’ report.

Consolidated Statement of Financial Position

FY 2019 12/31/2019 Current
FY 2018 12/31/2018 Current
FY 2017 12/31/2017 Current

(Unit : KRW)

	FY 2019	FY 2018	FY 2017
Assets			
Non-current assets	378,051,318,173	329,007,341,004	293,034,850,291
Property, plant and equipment	248,054,431,101	192,693,859,489	168,409,800,800
Investment property	11,894,826,252	11,988,801,780	12,082,777,308
Long-term trade receivables, gross	18,581,802,804	20,464,257,878	16,487,803,901
Investments for related company	9,037,513,842	16,798,582,682	27,399,977,709
Goodwill, gross	48,553,046,433	42,809,776,726	34,458,998,598
Intangible assets other than goodwill	7,902,166,172	11,842,357,793	4,668,065,763
Non-current derivative assets	0	0	0
Deferred tax assets	7,504,971,999	1,917,112,331	1,386,004,210
Other non-current financial assets	25,301,270,650	26,851,391,105	24,143,079,442
Other non-current non-financial assets	1,221,288,920	3,641,201,220	3,998,342,560
Current assets	438,092,460,871	341,833,125,895	226,898,804,433
Inventories	43,722,632,899	30,367,550,428	14,365,734,784
Short-term trade Receivable	117,355,078,903	124,527,299,538	75,479,385,391
Due from customers for contract work	60,057,431,874	46,605,161,149	45,768,606,726
Other current receivables	74,722,770,374	58,455,921,844	22,711,089,848
Current derivative asset	644,582,888	0	855,779,168
Current tax assets	975,665,139	3,996,665,788	722,941,032
Other current financial assets	8,288,970,636	6,769,844,616	6,584,059,268
Cash and cash equivalents	132,325,328,158	71,110,682,532	60,411,208,216
Total assets	816,143,779,044	670,840,466,899	519,933,654,724
Equity			
Equity attributable to owners of parent	179,395,341,883	174,837,713,218	162,117,297,819
Issued capital	11,217,490,000	11,217,490,000	11,217,490,000
Elements of other stockholder's equity	47,692,207,882	48,567,164,006	46,116,079,313
Other Reserves	8,831,794,891	8,367,867,482	7,076,627,535
Retained earnings	111,653,849,110	106,685,191,730	97,707,100,971
Non-controlling interests	114,969,760,554	111,889,873,534	86,047,324,124
Total equity	294,365,102,437	286,727,586,752	248,164,621,943

	FY 2019	FY 2018	FY 2017
Liabilities			
Non-current liabilities	140,074,181,634	108,444,733,881	92,498,073,477
Other non-current provisions	27,042,662,814	20,241,631,411	21,404,836,121
Long-Term trade Payables, gross	15,742,206,961	10,089,664,819	6,807,006,494
Long-term borrowings, gross	54,847,974,112	49,378,326,556	41,444,984,776
Convertible bonds	0	0	0
Post-employment benefit obligations	11,775,791,301	13,067,830,288	6,455,635,163
Non-current derivative liabilities	6,823,551,874	6,805,707,022	6,805,707,022
Deferred tax liabilities	0	0	0
Other non-current financial liabilities	23,841,994,572	8,861,573,785	9,579,903,901
Current liabilities	381,704,494,973	275,668,146,266	179,270,959,304
Other current provisions	158,333,520	0	119,103,923
Short-term borrowings	46,079,450,306	44,962,050,847	25,196,545,858
Trade payables	104,954,803,246	78,820,017,428	61,688,198,806
Current portion of convertible bonds	0	0	2,216,462,309
Other current liabilities	101,460,819,659	66,563,334,284	29,209,516,947
Advance from customers	96,860,635,518	66,749,613,029	46,805,787,244
Current tax liabilities	8,067,761,975	4,678,098,032	3,859,016,422
Current derivative liabilities	365,548,155	55,882,802	0
Current portion of long-term borrowings	18,340,696,868	13,149,334,684	9,991,504,972
Other current financial liabilities	5,324,779,059	688,281,459	0
Other current non-financial liabilities	91,666,667	1,533,701	184,822,823
Total liabilities	521,778,676,607	384,112,880,147	271,769,032,781
Total equity and liabilities	816,143,779,044	670,840,466,899	519,933,654,724

Consolidated Statement of Comprehensive Income

FY 2019 From 01/01/2019 To 12/31/2019
FY 2018 From 01/01/2018 To 12/31/2018
FY 2017 From 01/01/2017 To 12/31/2017

(Unit : KRW)

	FY 2019	FY 2018	FY 2017
Revenue	698,943,263,197	534,720,764,469	352,407,286,959
Sales	690,285,836,438	527,973,685,623	343,692,574,895
Revenue from valuation of associates	3,669,896,122	1,144,092,416	3,976,323,435
Revenue from rendering of services rental	4,987,530,637	5,602,986,430	4,738,388,629
Operating expense	677,430,856,777	521,444,779,348	332,657,781,714
Cost of sales	558,917,571,090	422,286,848,182	282,960,936,629
Loss from valuation of associates	1,560,308,038	7,178,249,307	2,067,246,101
Selling general administrative expenses	116,952,977,649	91,979,681,859	47,629,598,984
Operating income(loss)	21,512,406,420	13,275,985,121	19,749,505,245
Other gains	27,553,255,270	23,859,703,655	14,168,981,472
Other losses	24,571,268,978	12,852,725,196	14,073,663,057
Finance income	1,508,463,658	1,760,276,380	1,189,023,796
Finance costs	4,596,984,147	3,615,604,567	3,419,974,145
Profit (loss) before tax	21,405,872,223	22,427,635,393	17,613,873,311
Income tax expense	7,077,898,902	3,657,873,832	8,252,090,554
Profit (loss)	14,327,973,321	18,769,761,561	9,361,782,757
Other comprehensive income	(1,475,858,799)	758,046,360	803,293,189
Other comprehensive income that will not be reclassified to profit or loss, net of tax	(2,091,433,447)	(1,073,969,670)	1,585,427,129
Other comprehensive income, net of tax, gains (losses) on remeasurements of defined benefit plans	(2,001,699,078)	(1,070,725,446)	1,570,511,568
Profit and loss on valuation of available-for-sale financial assets	(89,734,369)	(3,244,224)	14,915,561
Other comprehensive income that will be reclassified to profit or loss, net of tax	615,574,648	1,832,016,030	(782,133,940)
Gains (losses) on exchange differences on translation, net of tax	704,646,790	825,995,016	(374,070,460)
Share of other comprehensive income of associates and joint ventures accounted for using equity method that will be reclassified to profit or loss, net of tax	(89,072,142)	1,006,021,014	(408,063,480)
Total comprehensive income	12,852,114,522	19,527,807,921	10,165,075,946
Profit (loss), attributable to			
Profit (loss), attributable to owners of parent	8,170,592,948	12,810,724,235	5,132,259,374
Profit (loss), attributable to non-controlling interests	6,157,380,373	5,959,037,326	4,229,523,383
Comprehensive income attributable to			
Comprehensive income, attributable to owners of parent	7,116,867,655	11,617,535,736	6,484,137,690
Comprehensive income, attributable to non-controlling interests	5,735,246,867	7,910,272,185	3,680,938,256
Earnings per share			
Basic earnings (loss) per share (Unit : KRW)	369	579	232
Diluted earnings (loss) per share (Unit : KRW)	369	579	232

THINK THE GREEN

Environmental Impacts Data

* The affiliates which are not in this table are in case of the company 1) who can not measure its usage and emissions by itself, or 2) who is not compulsory to report the environmental data as a second-tier subsidiary of KC GreenHoldings.

		Unit	Environmental Engineering							Environmental Service						Environmental Manufacturing		TOTAL
			KC Cottrell	Changchun KC Envirotech	KC Cottrell Vietnam	Lodge Cottrell	Nol-Tec Systems	NWL Pacific	KC Envirotech E&C	KC EnviroServices	KC Landfill Service	KC EcoCycle	KC Bio Resources	KC Green Materials	KC Eco Logistics	KC Glass & Materials	Clestra Hauserman	
Materials	Non-renewable raw materials	ton	6,792.5	0	0	60	0	0	0	0	0	0	0	0	0	7,928	0	14,781
	Renewable raw materials	ton	0	0	0	250	0	0	0	0	0	0	400.54	301,456	71,607	46,956	0	420,670
Energy	Fuel energy	TJ	0.722	0.112	0	0.3	0.08	0.085	0	53.242	0.631	4.118	0	0	3.06	276.819	6.7	346
	Renewable energy	TJ	-	0	0	0	0	0	0.026	1.73	-	0	0	0	0	0	0	2
	Electric energy	TJ	18.106	0.484	0.01	0.15	1.33	0.582	0.838	284.635	6.489	4.602	0	18.48096	25.16	261.16	2	624
Water	Surface water	ton	0	771	0	0	0	0	0	15,584	0	0	0	0	0	0	0	16,355
	Underground water	ton	7,125	0	0	0	0	0	0	0	0	0	18,736	0	1,628	75,588	0	103,077
	Rainwater	ton	0	0	0	0	0	0	0	0	0	0	0	30,993	0	0	0	30,993
	Municipa water	ton	0	0	120	100	2,509	0	0	164,325	1,284	1,853	917	646	0	348	2,716	174,818
	Total volume of water withdrawn	ton	7,125	771	120	100	2,509	0	0	179,909	1,284	1,853	19,653	31,639	1,628	75,936	2,716	325,243
	Recycled water	ton	0	0	0	0	0	0	0	56,410	0	0	0	0	0	27,857	0	84,267
GHG emissions	Direct (Scope 1) GHG emissions	tCO ₂ eq	0	0	0	50	0	0	0	289,324.3	0	0	0	0	0	17,765	385	307,524
	Indirect (Scope 2) GHG emissions	tCO ₂ eq	0	0	0	15	0	0	0	13,825.3	0	0	0	0	0	12,684	252	26,776
Air pollutant emissions	NOx	ton	0	0	0	0.2	0	0	0	124.5	0	0	0	0	0	47	0	172
	SOx	ton	0	0	0	0.1	0	0	0	11.3	0	0	0	0	0	44	0	55
	VOCs	ton	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0.2
	PM	ton	0	0	0	0.03	0	0	0	4.8	0	0	0	0.428	0	1.6	0.1	7
Effluent		ton	0	0	0	0	0	0	0	10,529	0	23.56	28,182	0	0	17,471	16	56,222
Water pollutant emissions	COD	mg/l	0	0	0	0	0	0	0	85.02	0	0	0	0	0	4.4	4.4	94
	BOD	mg/l	11	0	0	0	0	0	0	28.29	0	0	23,935	0	0	10.4	0.9	23,986
	T-N	mg/l	7	0	0	0	0	0	0	111.57	0	0	0	0	0	12.1	10.723	141
	T-P	mg/l	0	0	0	0	0	0	0	7.91	0	0	0	0	0	0.08	0.228	8
Waste	Reuse	ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recycling	ton	200	0	0	0	9.6	0	0	2,234.77	0	0	1,833	0	0	3	8.77	4,290
	Composting	ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recovery	ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Incineration	ton	0	0	0	0	0	0	0	3,903.07	0	0	844	0	2,958.06	11	31.78	7,748
	Landfill	ton	37	0	0	0	0	20	0	54,249.23	146.02	0	0	0	0	70	0	54,522
	Others	ton	0	0	1	30	0	0	0	0	0	0	56	2.4	0	22	0	111

GRI Standards

GRI Standards		Indicators	Page
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