

2015 - 2016 Sustainability Report

The World's Best

Power Plant Total Service Provider

KEPCO KPS



ABOUT THIS REPORT

Introduction of Report

This report is the sixth sustainability report of the KEPCO KPS Corp. (Hereby referred to as “KEPCO KPS”). KEPCO KPS is publishing a sustainability report every other year and intends to provide our performance regarding economic, environmental, and social responsibilities along with an overall understanding of the sustainability of KEPCO KPS to our stakeholders.

Report Writing Principles

This report was written in accordance with the comprehensive methods of the G4 Guidelines of GRI (Global Reporting Initiative) and reflected the contents of ISO26000 and the Ten Principles of UNGC. The financial information included in this report adheres to K-IFRS and the financial performance has been reported based on individual financial statements.

Reporting Period and Scope

The reporting period is between January 1, 2015 to December 31, 2016. The quantitative performance was supported by 3 years of data from 2014 to 2016 for understanding trends and data and parts of qualitative performance in 2017 were included for timeliness. The scope of this report includes the economic, social, environmental activities and performances of KEPCO KPS headquarter along with the 51 offices in Korea and the 14 overseas offices and local subsidiaries.

Report Verification

The financial information in this report was audited by an independent auditing firm. The contents of this report was verified by a third party in DNV GL, a professional verification institution with no ties to KEPCO KPS in order to secure objectivity, fairness, and reliability for this report.

Inquiries Regarding the Report

This report was published both in English and Korean. It is also available on the website of KEPCO KPS and registered on the websites of GRI and UN Global Compact as well. We are also listening to the opinions of our stakeholders regarding this report through various channels such as emails, mails, fax, and KEPCO KPS website.

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Sustainability Mission Statement

All employees of KEPCO KPS pledge to adhere to social responsibility while practicing sustainable management in economic, environmental, social, and human aspects for all stakeholders and contribute to sustainable development of society, country, and all humanity while simultaneously growing and developing into the world's best power plant service company in a sustainable manner.



Economy : Sustainable Growth

I pledge to discover new growth engines to improve profitability and to maintain healthy financial structure to improve corporate value.

I pledge to lead the way for advancement of maintenance and repair engineering technology through tireless technological innovation.

I pledge to improve managerial efficiency and secure competitive advantage through constant and autonomous managerial innovation.

Society : Fair and Transparent Management

I pledge to improve managerial transparency through strict work processing and information disclosure based on ethical management.

I pledge to fulfill the corporate social responsibility through compassionate management.

I pledge to enhance values through strengthening of partnerships with all stakeholders.

Environment : Environment-friendly

I pledge to perform eco-friendly facility installations and repair through the application of eco-friendly technology.

I pledge to contribute to resolving the energy issues in the future by developing technology related to renewable energy.

I pledge to preserve the Earth's environment by responding to the climate change with all group subsidiaries.

People : People-oriented

I pledge to make effort to nurture global talent with creative and professional mind.

I pledge to make effort to establish a mutually beneficial labor-management culture and to constantly improve the quality of life for the employees through promotion of welfare.

I pledge to materialize human rights management through preventing of accidents and improving of health for all employees as well as improving the treatment of social minorities and complying with various anti-discrimination principles.

CEO Message



“

KEPCO KPS has established the sustainable management code of conduct to overcome the difficulties in management environment both domestic and abroad as well as pioneering for a new future and all of our employees have united to materialize sustainable development.

”



Dear Stakeholders,

First of all, I thank you for all the support and love you have shown to KEPCO KPS. KEPCO KPS is making its best effort to improve national competitiveness and to contribute to electric power supply stabilization through various power generation facilities including hydro, thermal, and nuclear power plants along with renewable energy as well as providing service regarding the power transmission and substation facilities which serve as the national power grid.

Recently, the level of uncertainty has been increasing in the international energy market and significant changes are expected in government policies as trends against nuclear facilities and coal energy continue. KEPCO KPS is responding directly towards the intensification of competition in the power generation facility maintenance market along with the changes in government policies to achieve a stable financial performance and to fulfill social responsibilities as a public institution. Especially, we hope to meet the expectations of our stakeholders by describing our pledge to the future growth in detail through this sustainability report which is the sixth report for KEPCO KPS.

KEPCO KPS has been growing steadily ever since its sales has peaked over 1 trillion KRW and has achieved the sales of 1.1797 trillion KRW and 1.2231 trillion KRW and the net profit of 169.9 billion KRW and 88.3 billion KRW each respectively for 2015 and 2016. KEPCO KPS has been continuing its positive trend based on its advanced technology despite the difficulties in the management environment.

Also, KEPCO KPS has achieved meaningful achievements as of 2016 as it was nominated the best enterprise by DJSI KOREA 8 years in a row along with the Korea Financial Management Grand Prize for 3 years in a row and acquiring the first class certification for public institution integrity. We believe that this was the result of achieving balanced performance in economic, environmental, and social aspects as well as communicating actively with our stakeholders through the sustainability reports over the years.

Now, KEPCO KPS is pledging to adhere to the following sustainable management principles in order to transform itself as the world's best comprehensive power plant service company.

First, we will achieve stable growth by pioneering overseas markets and providing comprehensive service for power generation facilities. We expect to achieve sales overseas in a stable manner as our projects in UAE and Jordan are becoming operational and we will continue to secure growth engines for the future in new markets overseas. Also, we will focus on providing excellent quality service regarding the power generation facilities in Korea which is our core business to contribute to supplying electrical power in a stable manner.

Second, we will lead the way for advancement of energy technology to become the very foundation of the national electricity market. We will develop maintenance technology that puts environment first and support the minimization of environmental effects from electricity generation through optimal maintenance. Also, we will establish a maintenance system for pioneering renewable energy related technologies such as for solar power and wind power in preparation of the growth of the renewable energy market in the future.

Third, KEPCO KPS pledges to become a socially responsible corporate through philosophy of mutual growth. We desire to make KEPCO KPS grow together with its employees based on harmony between labor and management. Furthermore, we will establish an environment for mutual growth through reinforcement of cooperation for mutual development with our partner companies and pledge to fulfill the responsibility as corporate citizen through actively participating in the social contribution activities.

All of our employees here at KEPCO KPS will continue to achieve our vision and pioneer for the new future. We will make our best effort to overcome the difficulties in the management environment and transform into a comprehensive power plant service company with potential for growth in the new electricity markets. We at KEPCO KPS wish to receive support from our stakeholders for the bright future here at KEPCO KPS.

Thank you.

July 2017
CEO Jung Eui-Heon

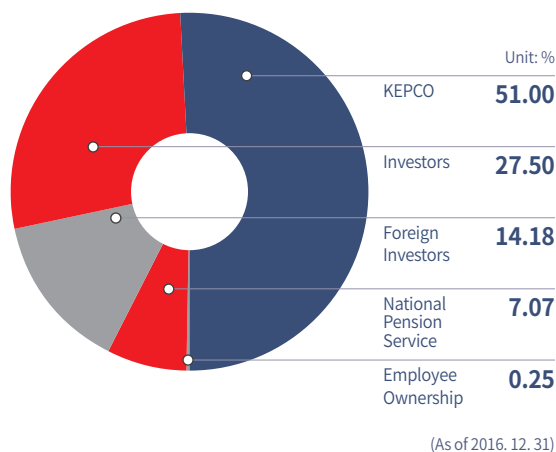
Introduction of KEPCO KPS

Creative Leading Company Providing The World Best Power Plant Total Service

KEPCO KPS is preparing to lead the way for the new future as a global enterprise and to make the leap as the world's best comprehensive power plant service company after 30 years since its founding.

Date Founded	April 1, 1984
CEO	Jung Eui-Heon
Capital	9 Billion KRW
No. of Employees	5,552 (As of 2016. 12. 31)
Managing Institute	MOTIE
Location of Headquarters	211, Munhwa-ro, Naju-si, Jeollanam-do, Republic of Korea

Sales (100 million KRW)	2014	10,855
	2015	11,797
	2016	12,231
Sales Overseas (100 million KRW)	2014	1,076
	2015	1,293
	2016	1,067



Field of Business

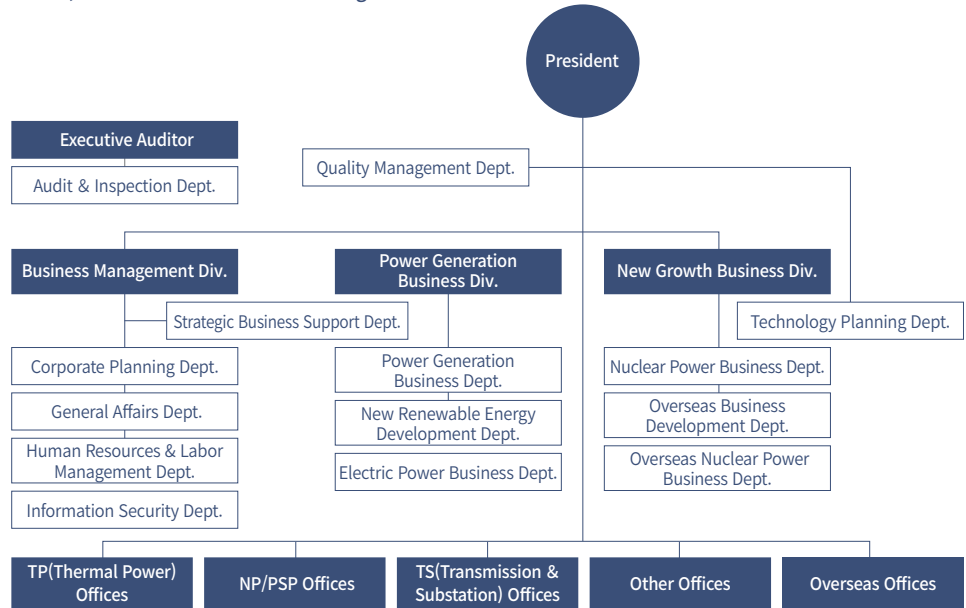
KEPCO KPS is a professional public enterprise that provides comprehensive service regarding diagnosis and performance improvement of power plant facilities, power generation facilities at home and abroad, renewable EPC, industrial facilities, and power transmission and substation facilities. Also, it operates a total maintenance and repair center for repair of core components of power generation facilities along with Technology research & development institute for development of core technologies while also participating in renewable energy projects involving solar power and wind power.

Unit: 1 million KRW

Category	Major Client	Sales for 2016(Ratio)	Project Details
Thermal Power Plant Project		471,346 (38.5)	Routine maintenance and construction work, planned preventive maintenance and construction work, renovation work, test drive maintenance for gas turbines, repair of high temperature components for thermal power facilities in Korea
Nuclear/Hydro Power Plant Project	KEPCO, KHNP, power plants in Korea, etc.	468,723 (38.3)	Routine maintenance and construction work, planned preventive maintenance and construction work, renovation work, test drive maintenance, implementation of advanced practical technology for nuclear power plant maintenance for nuclear/hydro power facilities in Korea along with development and commercialization of independent technology
Power Transmission and Substation Project		74,005 (6.1)	Maintenance of power transmission lines and live wires, HVDC facility inspection and maintenance, overall supervision of electric work, etc.
External Projects	Korea District Heating Corp., private power plants, etc.	101,784 (8.3)	Maintenance of domestic power plant facilities owned by entities other than KEPCO and renewable energy projects, etc. Research technology and service, etc.
Overseas Projects	Power plants at home and abroad	107,248 (8.8)	Operation/Maintenance of power generation facilities overseas KEPCO KPS PHILIPPINES CORP.

Organizational Status

KEPCO KPS is based in Naju, Jeonllanam-do, and consists of a headquarter, 3 head offices, 14 Departments, 51 offices in Korea and 14 foreign offices.



Business Sites

Operate 51 domestic, 14 overseas business sites

Thermal Power (20 Sites)	Nuclear Power (13 Sites)	Pumped Storage Power (1 Site)	Transmission&Substation (6 Sites)	Special Sites (11 Sites)	Sites Overseas (14 Sites)
Seoincheon, Boryeong, Ulsan, Samcheonpo, Taeon, Dangjin, Yeongheung, Hadong, Incheon, Pyeongtaek, Seochon, Honam, Busan, Bundang, Jeju, Gunsan, Yeosu, Namjeju, Samcheok, Shinboryeong	Kori 1/2/3, Hanbit 1/2/3, Hanwool 1/2/3, Wolseong 1/2/3, Saewool 1	Cheongpyeong	Seoul TS Offices, Daejeon TS Offices, Busan TS Offices, Daeju TS Offices, Gwangju TS Offices, Wonju TS Offices	GT Technology Service Center, Nuclear Power Technology Service Center, Human Resource Development Institute, Nuclear Power Training Institute, Plant Business Service Center, Hwaseong, Anyang, Dongducheon, Pocheon Technology Research & Development Institute, Technology Solution Center	Chanderiya, Jharsuguda, Ilihan, Bhavnagar, Daharki, Ambatovy, ATPS, Al-manakher, BNPP, BNPP Commissioning Office, Meghnaghat, South Africa Office, UAE Office, India Office, etc.

Current State of Subsidiaries and Equity Investing Companies

KEPCO KPS owns 1 subsidiary and 3 equity investing companies.

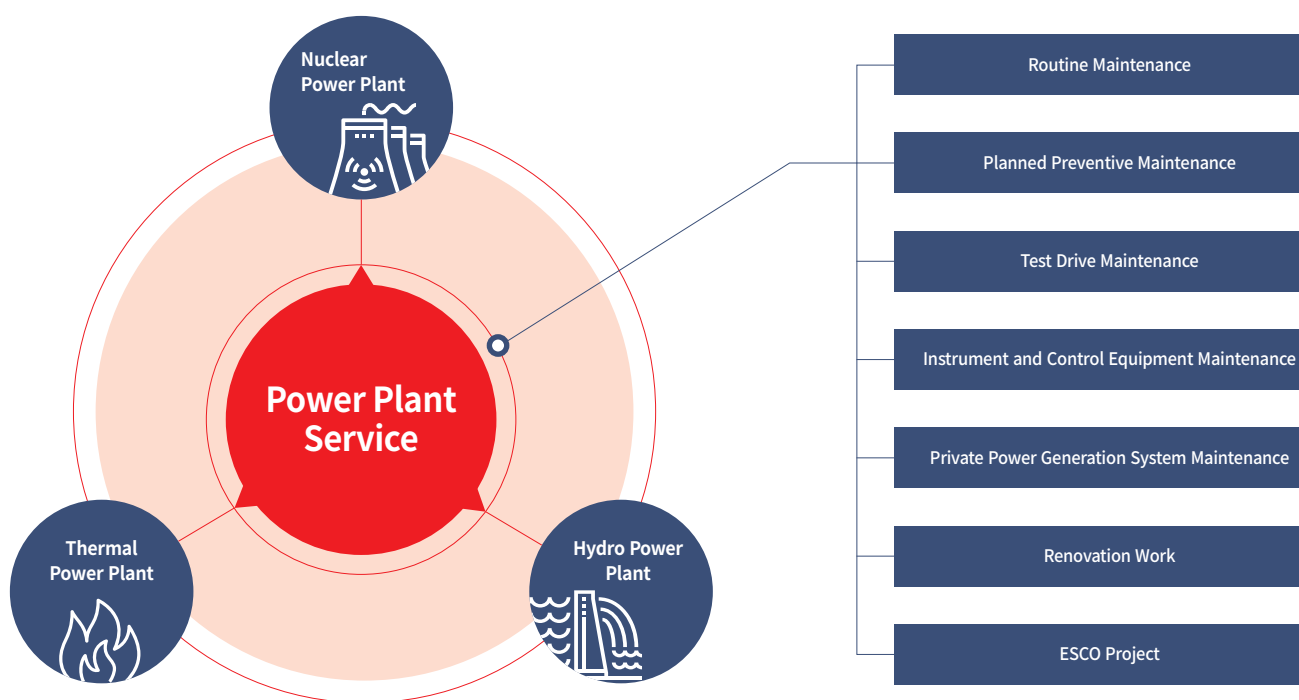
Unit: %

Category	Company name	Shareholding	Project Detail
Subsidiary	KEPCO KPS Philippines Corp.	99.99	<ul style="list-style-type: none"> Development of new projects and general management of projects in Philippines Increase of new business opportunities within Philippines is expected
Equity Investing Company	KEPCO Uhde Inc.	2.4	<ul style="list-style-type: none"> Acquisition of license for source technology of coal gasification Promotion of projects utilizing coal gasification technology in Korea and abroad as well as participation
Equity Investing Company	Incheon New Power Co., Ltd.	29	<ul style="list-style-type: none"> Songdo Environmental Resource Center Incineration Residual Heat (3MW) Power Generation Project. Business diversification through renewable energy industry (Incineration residual heat) and such
Equity Investing Company	Smart Power Co., Ltd.	5.55	<ul style="list-style-type: none"> Business pertaining to construction, management, and operation of SMART nuclear reactor Investment into companies constructing SMART nuclear reactor which is a technology developed locally within Korea

Business Overview

Power Plant Services (Nuclear, Thermal and Hydro)

Maintenance and repair are necessary for stable power generation equipment operation and the electrical maintenance industry is growing as the electricity industry develops. KEPCO KPS supports stable supplying of electricity through maintenance and management of power generation equipment and is promoting sustainability in the electricity industry which is a key industry in Korea. There are 51 offices operational in order to provide high quality maintenance for power generation and industrial equipment spread across the country.



Routine Maintenance

Every day, all normally operating equipment are inspected for any error and any discovered errors are resolved immediately with the equipment still operational which helps securing reliability for the equipment.



Routine Maintenance

Preventive Maintenance



Regular walk-around inspection activities & Maintenance during operation based on annual plan

Predictive Maintenance



Predictive maintenance which takes measure in advance by predicting the period of breakdown considering the operational variables

Breakdown Maintenance



Maintenance service in quick response to sudden breakdowns according to maintenance procedure

Planned Preventive Maintenance

Disassembly, inspection, and testing are performed on various devices and equipment with the power generation equipment shut down according to the long term maintenance plans of the power plant, relevant regulations, and technical specifications.

Test Drive Maintenance

We are securing the integrity of the equipment after its commercial operation by participating in the test drive maintenance work during the test drive period which is the final stage of the power plant construction.

Instrument and Control Equipment Maintenance

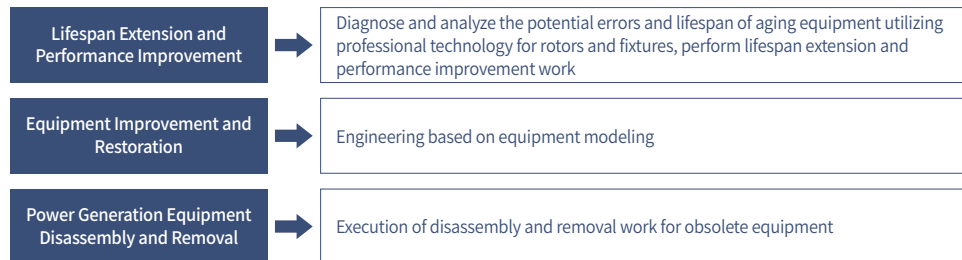
We are performing maintenance work on the control equipment on site such as the turbines, boilers, and exhaust gas desulfurization control equipment at hydro and thermal power plants as well as the primary and secondary control equipment at nuclear power plants.

Private Power Generation System Maintenance

We are providing quality service to our customers based on high quality maintenance technology that is being applied on sites which has been independently researched and developed as well as the technology that has been implemented from leading manufacturers and improved upon along with know-hows acquired from maintenance of power generation equipment.

Renovation Work

We are participating in equipment improvement and replacement works to minimize breakdowns and improve equipment performance as well as the equipment restoration work to restore discarded or inoperable equipment back to commercially operational status and additional equipment installation and relocation work.



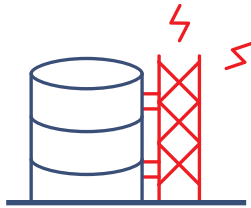
New & Renewable Energy Projects

After the Paris Agreement in 2015, the new climate regime was launched and the importance of developing innovative technology and massive supply of renewable energy is being stressed in order to achieve the 37% greenhouse gas emission reduction compared to BAU* by 2030. KEPCO KPS is promoting the development and supplying of various renewable energy source systems based on its accumulated superior maintenance technology and know-hows as a leading enterprise in creating the eco-friendly energy for the future in response. Also, we are providing the O&M service for the renewable energy equipment involving solar power, wind power, hydro power, and the ESS project based on our engineering technology.

* BAU(Business as Usual) :
Total expected amount of greenhouse gas to be emitted if no artificial measures are taken to reduce greenhouse gas emission



Power Transmission and Substation Facilities Services



Power transmission and substation facilities related total maintenance service



We have established a maintenance network all over the country for preventing breakdowns and speedy restoration of power transmission equipment which make up the national electrical grid and we are making our best effort to supply electricity in a stable manner by operating this system as we also provide a comprehensive maintenance service related to power transmission and substation facilities such as maintenance of power transmission lines, live wires, and HVDC conversion equipment along with the construction, construction supervision, engineering, and safety diagnosis of power transmission lines.

Manufactured Power Transmission Line Maintenance

KEPCO KPS is maintaining the power transmission lines that are weak against the climate change and external environment in an optimal state by performing regular inspections, preventive maintenance, and sudden breakdown restoration work for all power transmission lines through our latest equipment and professional maintenance technicians.

High Voltage Power Transmission Live Wire Maintenance

The live wire maintenance method consists of a technique which performs maintenance with the electricity still flowing through power transmission line. KEPCO KPS possesses the faulty insulator detection technology for live wire maintenance and to inspect the insulation performance of the insulator along with the helicopter live wire insulator cleaning technology.

New Growth Engine Project

We provide construction supervision for power transmission line and electricity facilities construction projects for stabilization of electrical work and supplying high quality electricity. We also perform safety diagnosis for optimization of electricity equipment along with the construction of power transmission lines and the development of new electricity related technology to secure the best construction quality for our maintenance and repair services.

HVDC Conversion Equipment Maintenance

We are contributing to securing the electricity supply capability to Jeju area and improvement of reliability through maintenance, management, and repair of HVDC conversion equipment which operates as a direct current power transmission type in order to connect the electrical grid between Jeju and the mainland (Hae-nam) and we are also leading the way in the field of HVDC maintenance.

Overseas Power Plant O&M



World leading maintenance service exported to
25 countries



KEPCO KPS has operated various power generation equipment both at home and abroad while also being responsible for their maintenance based on maintenance know-how and technological capacity accumulated over the years and KEPCO KPS has been improving the national prestige of Korea by expanding its services into 25 countries overseas. KEPCO KPS has been participating in the UAE Nuclear Plant Test Drive Project since 2013 and is due to perform maintenance work until 2020.

Overseas Power Generation System Operation and Maintenance

KEPCO KPS has been improving the national prestige of Korea as a technologically advanced nation by expanding into various countries including Australia, India, Pakistan, Indonesia, Saudi Arabia, Jordan, Republic of South Africa, Mexico, and Madagascar. KEPCO KPS has achieved orders over 100 million dollars in 2007 for the first time since it started its overseas business and has been earning 100 million dollars in annual sales on average for the past 3 years. In 2015, KEPCO KPS has won the contract for the operation and maintenance work of the power plant at Egbin, Nigeria and in 2016; KEPCO KPS has won the contract for the test drive project of the thermal power plant at Safi, Morocco as KEPCO KPS continues to expand the field of business.

Overseas Nuclear Power Plant Project

KEPCO KPS has dispatched technical expert personnel to numerous companies overseas to participate in the maintenance work overseas and in 2014; KEPCO KPS has won the contract for fuel loading service for the nuclear power plant at Angra, Brazil and has established the foundation as a professional maintenance company in the overseas operational nuclear power plant maintenance business. KEPCO KPS has participated as a member of the KEPCO consortium for the contract regarding the UAE nuclear power plant in 2009 and has won the contract for the test drive and maintenance of 4 reactors at the nuclear power plant at UAE in 2013 and KEPCO KPS is planning to perform the test drive and maintenance work in stages until 2020 when the 4 reactors are to be completed. Also, KEPCO KPS has been consistently promoting regular meetings for contract negotiations with the client company since April of 2015 for the long term maintenance project regarding the UAE nuclear power plant.

Professional Technical Service

(As of January 2017)



1,237 Cases of patents,
international patents,
and utility models

Technology Research & Development Institute

KEPCO KPS has established and operates an efficiency-oriented R&D system for each research team to be able to focus on their respective research and development projects. We are conducting the research for the newest maintenance techniques and automated technology for effective maintenance along with other various technologies including robotic application and decommissioning of nuclear power plants.

Technology Solution Center

KEPCO KPS has been tracking the solutions for various technical issues that may occur at power plants and industrial facility plants based on its experience from operating numerous power generation facilities in Korea and has established and operates a system specialized by fields to make technical consultation for optimal power generation facility operation possible.



GT Technology Service Center

The GT Technology Service Center has established a comprehensive service system for repairing components such as gas turbines and steam turbines and is performing maintenance service such as the repair, maintenance, and production of high temperature components for gas and steam turbines along with repair and maintenance of large industrial equipment components, and large rotor machine work and balancing to perfection utilizing various latest technologies.

Nuclear Power Technology Service Center

The Nuclear Power Technology Service Center is responsible for the maintenance and engineering work for core equipment of nuclear power plants. It is also preparing the foundation necessary for sale of nuclear power plant maintenance technology abroad while leading the way in the localized development of nuclear power plant maintenance technology in Korea.



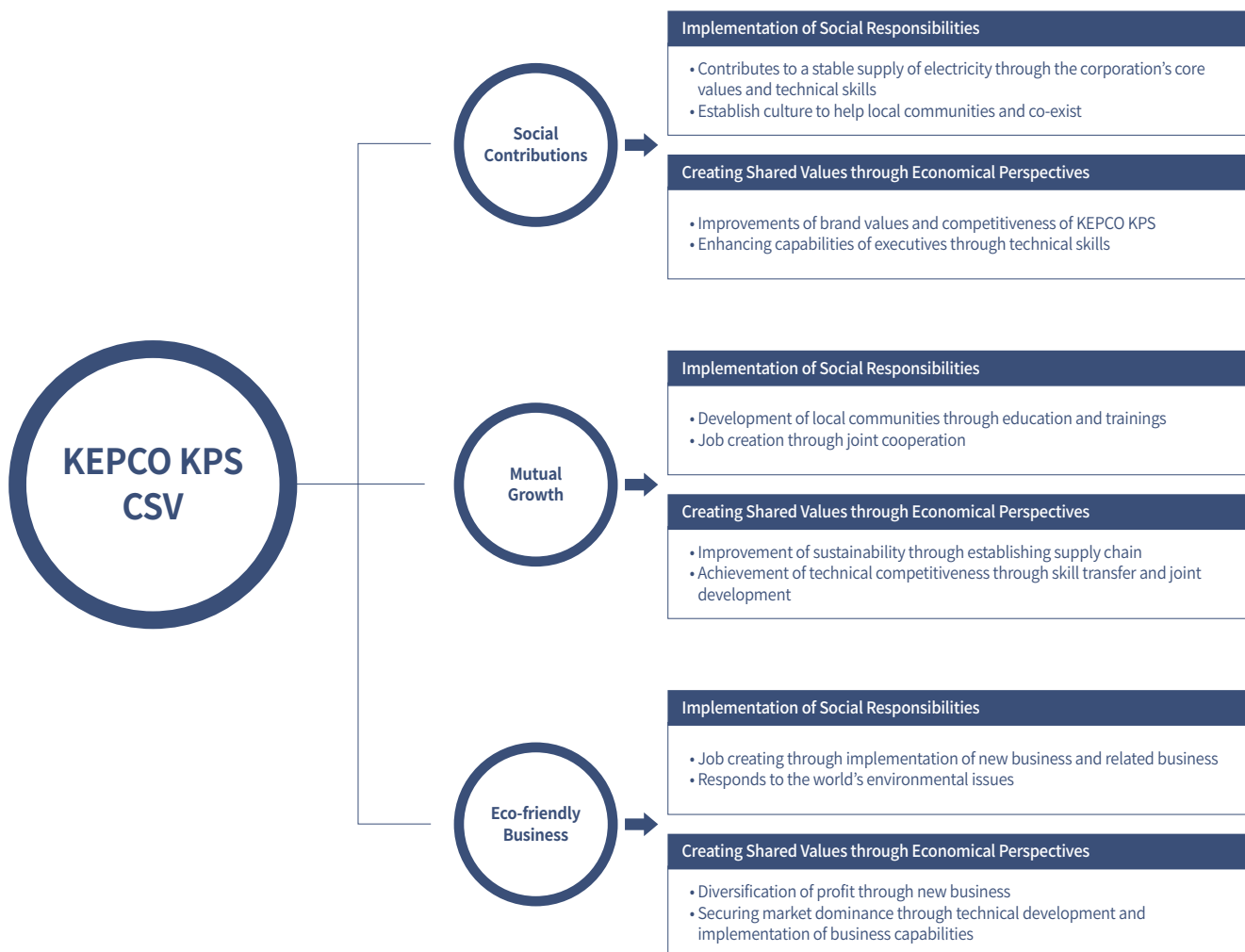
Plant Business Service Center

The Plant Business Service Center features our brightest engineers and is responsible for performing high quality maintenance service for private power generating facilities and regular industrial facilities. Also, it is promoting the development and supplying of various renewable energy source systems.

KEPCO KPS CSV Cases

Creating Shared Value (CSV)

Creating Shared Value means sharing values of corporation's management activity which in itself is intended to achieve social values and economic results. KEPCO KPS put a considerable amount of effort to share skills and technical know-how through numerous activities and methods to become a sustainable corporation that seeks to create new values and to create sustainable society.



CSV 1. Creation of Shared Values through Workforce Representatives and Social Contributions

Many corporations implemented social contribution activities as the importance of corporate responsibilities in social contributions as opposed to the previous profit-oriented corporations. However, Creating Shared Value (CSV) becomes popular which is a step forward than an original social contribution. In accordance with this new trend, employees of KEPCO KPS makes the best use of maintenance capabilities to contribute to stable supply of electricity and the development of skills in the related businesses, such as a replacement of old electric wirings, safety trainings for children, activities related to ensure safe usage of electricity, and the maintenance of old farming tools, house, and boilers.

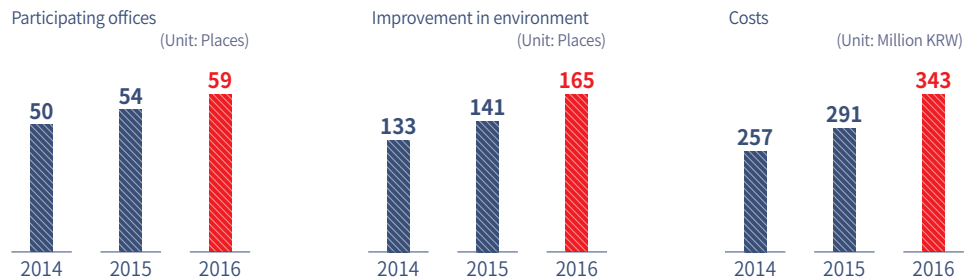


Setting Up a Dream Home activity

Setting Up a Dream Home “For the Children”

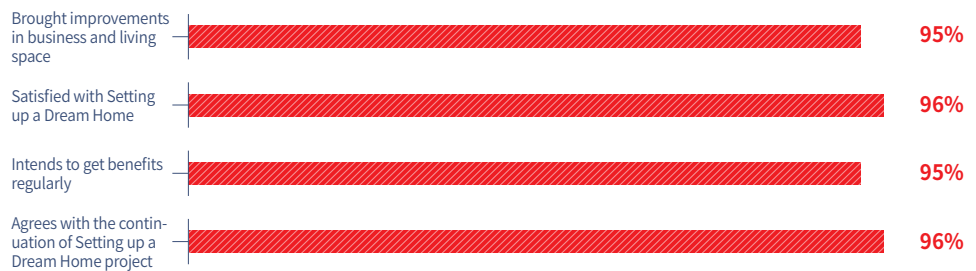
KEPCO KPS supports children who are the future of the society by improving low-income children's living space and facilities through a partnership with Child fund Korea. This project is considered as the representative social contribution activity by KEPCO KPS started in 2009, and is progressed through multiple stages such as planning, selection of target businesses and implementation, and attempts to share technical capabilities possessed by our company.

Performances



2015 Results of Satisfaction Survey

KEPCO KPS helps children to pursue their dreams even in the harsh environment by constantly assessing satisfaction survey results.



Target: 100 persons (Child Fund Korea Local headquarters managers and business beneficiaries)

C A S E - S T U D Y

It's happier to give than to Receive



In July 2015, the employees in charge of the Hanbit office 1 and 3, the Hanbit office 2 of business visited a household of a 6th grader child in Gun-seo-myeon, Yeonggwang-gun in order to improve a living space of a local community. The 6th grader is living with 9 other family members who are his grandmother, uncle, and cousins and experiencing discomfort living in an old house. In order to help the household, the employees in charge came and made best use of their skills to proceed a panel construction, an organization of interior and exterior, and electric works, resulting in 2 new rooms and a restroom for the child. Moreover, they buried an electric wire of inside underground and cleaned the interior so that the family can enjoy a new and comfortable living space. We were happy to see the family members enjoyed their new space and realized the happiness of sharing.

An employee participated in the Setting up a Dream Home
(Hanbit office 1, Deputy Head Hwang Seon-yeon)

CSV 2. Value Realization through Mutual Growth in Ecosystem Establishment

Many companies strengthen their sustainable supply chain systems by specifying sustainable supply chain factors as dominant factors in terms of business competitiveness. KEPCO KPS proceeds to implement various mutual growth business models in order to achieve these supply chains of sustainability, and also establish an ecosystem by creating a coexistent culture with small companies to create Shared Value. Introduced in 2015 and now being the 2nd year, the 'one workplace for one mutual business' project is now a representative mutual growth project that discovers and implements strengths of offices (hydration, nuclear, and transmission power plants) and small companies. Moreover, it is working on a transfer of skills, market supports, co-research development, and mutual registration of a patent, and also supports development of research, human resources, and productivity through the '2016 December Mutual Growth Investment Funds' which amounts to 200 million KRW.

2016 performances of the representative mutual growth project

Category	Work Places	Projects	Performance
Transfer of skills	GT Maintenance Technical Center	Sharing GT rotor maintenance Jig production technique	<ul style="list-style-type: none"> Produced Jig and assess the quality through a rotor mock-up test Supported the market through a constant order
Technical Support	6 Offices including Hanul 2	Supporting maintenance technique for small companies	<ul style="list-style-type: none"> Supported for insulation diagnosis for intakes during the Hanul #3 13th OH construction of 6 CWP motors Provided skills that are not present with partners
Maintenance Skill Training	29 Offices including Seocheon	Trainings to improve partner's maintenance technique	<ul style="list-style-type: none"> Trained 20 employees in mechanical fields Trained 5 employees in electric files Resulted in 2 employees passing the national technical qualification exam
Quality Training	7 Offices including Boryeong	Trainings to improve quality of small companies	<ul style="list-style-type: none"> Provided materials such as a maintenance procedure for Boryeong #1 OH construction Examined and guided partner's product manuals
Equipment Support	5 Offices including Ulsan	Renting tools and lifting device for free	<ul style="list-style-type: none"> Rented tools for 18 times and a small lorry truck for 58 times Trained how to use special equipment(Improved safety and productivity)
Contract Training	4 Offices including Cheongpyeong	Trainings about entrance procedures in the plant and contracts	<ul style="list-style-type: none"> Shared information and supported administration through communication with partners
Market Support	3 Offices including Gori	Supporting superior products of small companies	<ul style="list-style-type: none"> Advertised companies' products Provided an opportunity to advertise products through demos for equipment
Conference	2 Offices including Donghae and Wolseong	Conference to establish clean transaction culture	<ul style="list-style-type: none"> Collected opinions by attending 10 conferences Sent ethical management guide to 20 companies

C A S E - S T U D Y

1 Workplace 1 Mutual Business Samcheonpo Office

KEPCO KPS Samcheonpo branch performed a mutual growth by contacting a free rental of tools with 4 partners in 2016. It supported an efficient rental of tools through a combination of trainings of tools on top of the free rental and achieved a total of 100 rentals to partners. It plans to improve the rental project by an aggressive advertisement and continued free rentals of tools



CSV 3. Realization of Environment Friendly Future Through

Modern environmental issues such as the depletion of fossil fuels and the climate change can only be resolved through a unified effort by every humanity and corporations. For this reason, KEPCO KPS formed a supply chain for renewable energy sources such as solar and wind energy in all stages from planning of ESS, delivery, construction to maintenance, and accumulated various skills and know-how over years of undertaking businesses. Moreover, KEPCO KPS also continues sustainable energy industries through securing various technical equipment for renewable energy businesses. Also, KEPCO KPS contributes to job creation by hiring talented applicants.

Wind Power Operating and Maintenance(O&M)

KEPCO KPS attempts to fulfill low-carbon green growth by securing a system and developing techniques needed to compose wind power generation O&M. We accumulated business abilities in preparation for off-shore wind power generation O&M in the western sea by securing maintenance contract of an adaptive 3MW wind power generator in the western sea which is a government R&D project in 2015.

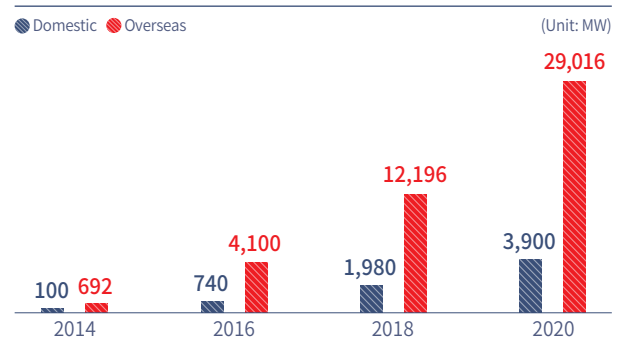
ESS Establishment Business

ESS possesses a market potential in various business areas by containing functions for better energy usage such as an amplitude modulation, a peak reduction, a continuation of renewable energy, and an emergency button. Especially, we develop business mainly in a peak-reducing ESS section such as FEMS (Factory Energy Management System) to minimize energy usage and cost and BEMS (Building Energy Management System) to utilize a smart energy use in buildings. Moreover, we plan numerous strategies to undertake ESS related businesses and participate in bidding for the related projects, and organized a team to work on the most optimized business models of ESS. Other than this, we continue to do research for securing technology and joined related associations, participated in home and abroad exhibitions to collect and use the newest technologies.



Wind Turbine Projects

ESS Market forecast in domestic and overseas



C A S E - S T U D Y

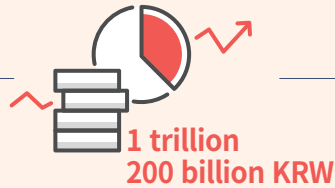


Executing MOU Agreement in Renewable Energy Development Business

KEPCO KPS executed an MOU agreement in the renewable energy development business at the headquarter in the innovation city, Jeollanam-do to activate a renewable energy business along with KEPCO KDN, Jeonnam Development Corporation in November 2016. We plan to do our best in cultivating and implementing the Jeollanamdo renewable energy business in every aspect such as solar panel on water, massive solar panel complex, Jeonnam offshore wind power, causes of hindrance of renewable energy business in order to cultivate a renewable energy industry in Jeollanamdo with the 3 above-mentioned organizations according to the agreement.

2015-2016 Highlight

Sales reached 1 trillion
200 billion KRW



The sales of KEPCO KPS reached 1 trillion 223 billion KRW in 2016. Ever since reaching 1 trillion KRW in 2012, KEPCO KPS has been constantly growing its sales, especially when it reached 1 trillion 100 billion KRW in 2015 and continuously reached 1 trillion 200 billion KRW in 2016, KEPCO KPS is taking one step closer to its VISION 2025 which is to exceed sales of 3 trillion KRW.

KEPCO KPS have been selected as the excellent firm for quality competitiveness by Ministry of Trade Institute of Standards and Technology as the superior management performance of KEPCO KPS was recognized for 18 consecutive years which has never been preceded among state-owned companies.



Selected as an
excellent firm for
quality competitiveness
for 18 consecutive
years

Winning Korean finance
management prize for
3 consecutive years



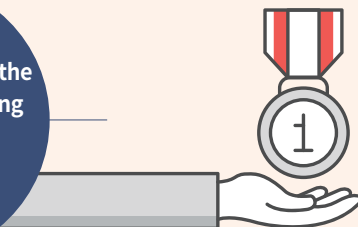
KEPCO KPS won the 1st prize for the 17th Korean Financial Management for 3 consecutive years that was held by New Industry Management Academy. It means that KEPCO KPS has contributed to the development of the nation and the society through healthy corporate businesses, and it is significant because it was a comprehensive examination of quantitative qualities of the corporate's stability, profit, and activities and a combination of the corporate's management values, management capabilities and social contribution.

KEPCO KPS has been nominated as the top company for 8 consecutive years in the DJSI 'commercial service and distribution' section in the international conference by Dow-Jones in 2016.



Selected as the top
company by
DJSI KOREA for
8 consecutive years

Maintains 1st class in the
integrity index among
public
institutions



KEPCO KPS received the first class in the integrity index among public institutions in 2016 which is held by Anti-Corruption and Civil Rights Commission. It was possible because of the enhanced audit consulting and a strengthened inside rules for the settlement of integrity and transparent corporate ethics through a preventive audit system.

KEPCO KPS achieved the grade A in the management evaluation by the Mistry of Trade affiliated organizations in 2016. It is a result of efforts to achieve a continuous growth among employees even in the harsh circumstances. KEPCO KPS will put an effort to realize a flawless maintenance through a stable supply chain and and best efforts as a public institution.



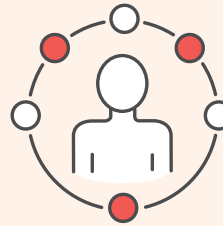
Won 1st prize for management evaluation for 3 consecutive years

The new incorporation of KOSPI 100 index



KEPCO KPS was incorporated into the KOSPI 100 index in June 2015 ever since it started the first transaction in the stock market in December 2007. It is estimated that the healthy financial structure and sustained growth drew investors' attentions. The new incorporation of the index is expected to raise KEPCO KPS's status domestically and internationally.

KEPCO KPS had the proclamation ceremony for a new corporate culture along with the 32th commemoration of the foundation. KEPCO KPS also established a detailed plan of execution which outlines several goals such as, a changing KEPCO KPS (establishment of foundation for changes), a harmonious KEPCO KPS (enhancement of organizational harmony), a challenging KEPCO KPS (improvement of challenging leadership), and a growing KEPCO KPS (operation of organization based on performances) under the slogan of "Act with innovation and grow through challenges".



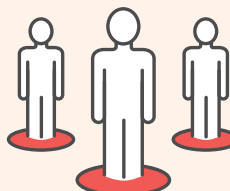
Roadmap establishment for improvement in corporate culture

Received the grand prize for the best working environment in Korea among 100 corporations (GPTW)



KEPCO KPS received the grand prize for the best working environment in Korea among 100 corporations held by GPTW. This means that KEPCO KPS is recognized as constantly working toward to build a healthy corporate culture, for example, implementing a program to balance work-life balance of employees.

KEPCO KPS received the grand prize for the 13th Korean Ethical Management Prize for public enterprises held by New Industry Management Academy supported by Mistry of Trade. It helps enhance a brand as an ethical corporation through a title 'Crystal KPS', promotes ethics programs for each of the persons concerned, diagnosis of employees on ethics, and customized ethics trainings in order to settle a practical culture.



Received the grand prize for the Korean Ethical Management Prize for public enterprises

SUSTAINABLE MANAGEMENT

SUSTAINABILITY MANAGEMENT

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ABILITY IDENTITY



Sustainable Management Strategy

Progress Directions for Sustainable Management

KEPCO KPS promises to grow as the world's best power plant company that contributes to the sustainable development of local community as well as global communities by implementing sustainable management in economy, environment, and social aspects, which many stakeholders are interested in, and by undertaking social responsibilities as a public institution.

Progress Strategy for Sustainable Management

KEPCO KPS actively operates strategies of core factors for sustainable management such as economy, social, and environmental sections along with the corporate management strategy with a goal to realize its management vision which is to become "the world's best power plant and the creative leading company that provides the Total Service".

Vision	Creative Leading Company Providing The World Best Power Plant Total Service				
2025 goal	Sales 3 Trillion KRW	Productivity of 450 million KRW per person		New growth business sales exceeds 38%	
Core Value	Customer Satisfaction	Innovation	Technology	Human Resource	Globalism
Integration of strategies for mid/long term and sustainable management					
Management Goal	Customer-centric responsible maintenance	Expansion of growth engine businesses	Securement of capabilities for the future	Enhancement of a foundation for sustainability	
Strategy Assignment	<ul style="list-style-type: none"> Realization of a flawless maintenance Differentiated maintenance Provision of service, Maintenance market environment Active reaction to changes 	<ul style="list-style-type: none"> Development of new overseas businesses and expansion of profits Stabilization of UAE nuclear plant maintenance business Enhancement of renewable energy and diversification of related businesses 	<ul style="list-style-type: none"> Implement of core maintenance techniques in R&D section Establishment of a foundation of a strategy for future businesses Constant securement of core human resources 	<ul style="list-style-type: none"> Establishment of a Labor/Management culture of mutual benefit Leading role in completing social responsibilities and ethical management Establishment of progressive corporate culture Improvement of safety in maintenance sites and information security 	

Organization for Implementing Sustainable management

KEPCO KPS reflects CEO's strong management will in implementing sustainable management and establishes and operates the sustainable management system. The strategy planning team of the corporate planning department carries out general tasks about sustainable management, and each executive department sets and operates the Key Performance Indicator (KPI) and subtasks about sustainable management. Especially, it reflects opinions from the inside and outside of the company on management policies by operating the sustainable management committee.



Core performance index for sustainable management

KEPCO KPS devised a core performance index for sustainable management in order to evaluate sustainable management strategies and regularly checks it. Especially, KEPCO KPS improves effectiveness of annual goal achievements by checking and providing feedbacks on them.

Category	Core Performance Index	Unit	Goals		
			2017	2018	2019
Sustainable growth	Sales	100 million KRW	14,697	16,911	20,055
	Productivity per person	100 million KRW	2.6	2.93	3.4
	R&D investment ratio (compared to sales)	%	2.91	Conforming to the government's recommendation	Conforming to the government's recommendation
	Fail stop of a company's imputation	Number	0	0	0
	Foreign customer satisfaction	Score	More than 90	More than 90	More than 90
	Sales of overseas business	100 million KRW	1,804	2,522	2,820
	Sales of new business	100 million KRW	2,274	2,774	4,652
Responsible Management	Purchase ratio of small and large business products	%	87.04	Conforming to the government's recommendation	Conforming to the government's recommendation
	Annual time spent on corporate social responsibility per person	Hours	17.6	17.9	18.2
Human-centric management	Cultivation of core human capital	Person	554	602	654
	Ratio of handicapped employees (compared to the full-time workers)	%	More than 3.2%	Conforming to the government's recommendation	Conforming to the government's recommendation
	Internal customer satisfaction	Score	More than 73	More than 73	More than 73
	Integrity evaluation by Anti-Corruption and Civil Rights Commission	Class	1	1	1
	Rate of industrial accidents	%	0.01	0.01	0.01
Environment Friendliness	Reduction of energy usage	%	24	26	28
	Reduction of emission of greenhouse gases	%	24	26	28
	Purchase amounts of green products	100 million KRW	62	Conforming to the government's recommendation	Conforming to the government's recommendation



Selected as the best corporation for 8 consecutive years according to the Dow Jones Sustainability Indices (DJSI) Korea

KEPCO KPS is foreign credited for performances of sustainability management by selected as the best corporation for 8 consecutive years in 'commercial service/supply businesses according to the Dow Jones Sustainability Indices (DJSI) Korea. Especially, KEPCO KPS operates a sustainable management system along with the vision 2025 and received recognition for having a global competitiveness in operating sustainable management. We promise to continue to do our best as the global leader of sustainable management that fulfill economic, environmental and social responsibilities.

UN Global Compact

KEPCO KPS promises to fulfill corporate social responsibilities and by joining the UN global compact in September 2007, we abide by 10 principles in 4 different sections such as Human rights, Labor, Environment, and Anti-corruption. Especially, we strive to achieve an integration of 10 principles of the UN global compact to the sustainable management strategies and management policies. We reconfirm our support for 10 principles by submitting sustainable management performance report to UN every year.

UN Global Compact (20)



Management Performance and Goal Management



Vision 2025

Management Performance and Goals

KEPCO KPS strives to achieve mid/long term strategies “2025” by actively taking parts in government policies such as the government 3.0 promotion plans and normalization of public institutions. Moreover, KEPCO KPS establishes financial plans along with 2025 to enhance foundations for sustainable development through a stable financial structure.

Create economic values

KEPCO KPS formed a financial budget plan along with a mid/long term strategic management plan in 2015. Especially, the sales in 2020 is expected to be 2 trillion 300 billion KRW, and 3 trillion KRW by 2025, with the implementation of new growth businesses such as new facilities, renewable resources, and retrofit followed by the 7th demand supply program. KEPCO KPS enhances feedback process in order to actively react to changing environments and improve financial plans based on the mid/long term sales. As a result, KEPCO KPS was able to achieve sales of 1 trillion 223 billion KRW, business profits of 106 billion KRW and net profits of 88 billion KRW even in the worldwide economic downturn.

Major Financial Performances

Category (100 million KRW)		2014	2015	2016
Statement of position	Assets	9,255	10,336	10,925
	Debts	2,275	2,473	3,027
	Capital	6,980	7,863	7,898

*Debt ratio: 38.3% (zero debt firm)

Category (100 million KRW)		2014	2015	2016
Income statement	Sales	10,855	11,797	12,231
	Business profits	2,158	1,752	1,058
	Net-profit	1,683	1,699	883

*Ratio of operating to sales : 8.6%

Category (100 million KRW)		2014	2015	2016
Business performances in each department	Thermal power	4,331	4,574	4,713
	Nuclear power / Pumped Storage Power	3,906	4,384	4,687
	Transmission and substation of electric power	614	693	740
	External	928	852	1,018
	Overseas	1,076	1,294	1,073
	Total	10,855	11,797	12,231

Performance result in each department

Thermal Power	Nuclear Power	Transmission and Substation	External	Overseas
An increment of 14 billion KRW followed by the increase in the regular maintenance of new contracts and renovation	An increment of 30 billion KRW followed by the increase in preventive maintenance plan, record and renovation	An increment of 5 billion KRW followed by the increase in the regular maintenance of new contracts and renovation	An increment of 16 billion KRW followed by the increase in regular maintenance and renovation in Dongducheon and Paju	A reduction of 22 billion KRW followed by the reduction of electricity in Al Manakher

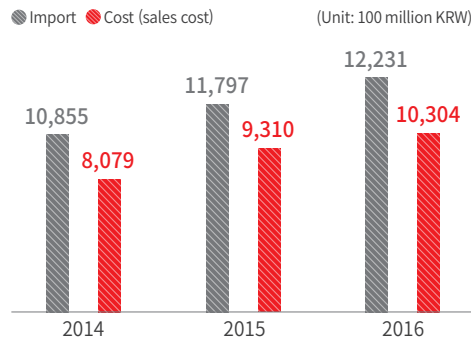
Allocation of economic value

KEPCO KPS was able to achieve sales of 1 trillion 223 billion KRW, business profits of 106 billion KRW and net profits of 88 billion KRW even in the worldwide economic downturn in 2016, and also was credited for increasing its market capitalization from 599 billion KRW when it first listed stocks to 2 trillion 439 billion KRW (306% increment) in the end of 2016.

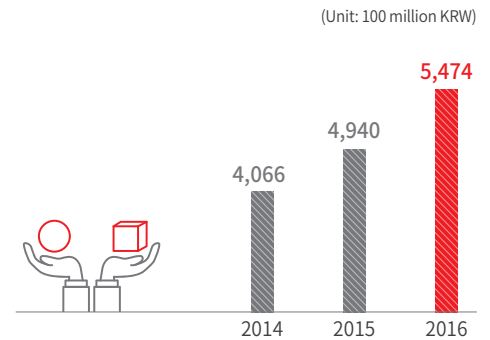
Main Distribution Performances

Cost of interest	Personnel expenses
KEPCO KPS maintains a zero debit firm ever since 2001.	The personnel expenses in 2016 were 547 billion KRW and excluding the retirement benefit of 42 billion KRW, the total expenses were 50.5 billion KRW.
Tax	Social contribution fund
Income tax expenses according to accounting standards listed on the income statement reduced to 24 billion KRW in 2016, a 108.5% reduction compared to the previous year.	KEPCO KPS carried out 1,577 million KRW worth of social contribution activities in 2016 which is a 15 million KRW increment from the previous year.

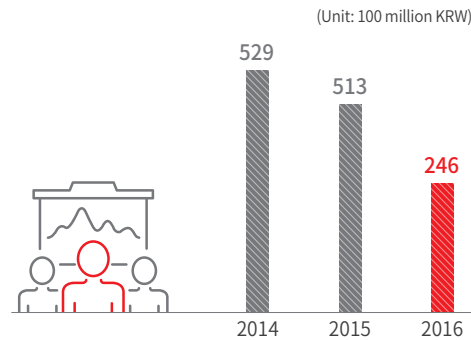
Import and Operation Cost



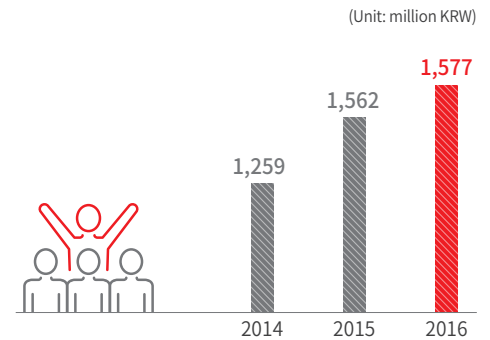
Wage and Welfare



Corporate Tax



Social Contribution Funds



Ethical Management

Strategy direction

Ethical management has become a requirement in order for a sustainable growth of a company. KEPCO KPS practices a transparent and clear ethical management to achieve the 'Crystal KPS' which received trust from domestic and foreign companies. To achieve this, KEPCO KPS set up 3 strategical tasks and 9 sub-tasks and promises to become the trustworthy public institution through constant activities and transparent corporate culture.

Goal	Global Ethics Management, Crystal KPS			
Subject of strategy	Reinforcing ethical management system		Development of transparent ethics activities	Leading an integrity·ethics corporate culture
Detailed promotion works	<ul style="list-style-type: none"> Activation of the Ethics Economic Commission Reinforcement of report center Enhancement of diagnosis/feedback on the degree of integrity and ethics 		<ul style="list-style-type: none"> Expansion of a bond of sympathy for ethical management and systematization of customized integrity and ethics and development of ethical activities 	<ul style="list-style-type: none"> Establishment of a shared system for integrity and ethics Enhancement of social responsibilities Enhancement of active and pre-emptive release of information
Execution system	Execution standards	Ethical sites, a code of conduct for executives, a code of conduct for contractors, operation provision for executives' integrity agreements	Executing Organizations	(Decision making) Ethics Economic Commission (Directing) Audit & Inspection Dept., A code of conduct officer (Action) Corporate Planning Department, ethics keeper
	Reporting system	Internal report / report of unfairness / report of contractors for discomforts / Cyber ethics center / center for reemployment of retired employees / anti-graft law report center	Training program	Cyber training (all employees) Integrity training (all employees) Lifelong integrated education (new recruits, managers etc.)
Evaluation process	External	Integrity evaluation, Corruption prevention policy evaluation	Reflection of plans for ethical management / anti-corruption integrity policies Reflection of an internal evaluation of offices and rewarding excellent cases Discovery of weakness and an improvement of related policies/system	
	Internal	Self-evaluation of integrity, ethical management activities index		

Ethical management centric activities

Operation of ethical management system

KEPCO KPS prevents ethical management related risks through a diversified ethical management system. We actively react to the changes of government policies through the ethical economic commission. and collects opinions by holding a regular meeting and secures auditorial fairness and objectivity. Moreover, we also activates an internal report system by operating a reporting center and expands a transparent culture through a various investigation, diagnosis and evaluation such as self-integrity evaluation and the degree of ethical management evaluation.

Performance review of the report center
(Unit: case)

Year	2014	2015	2016
Reported cases	22	18	15
Resolved cases	22	18	15



Consignment event of the 2nd integrity ombudsman

Operating performance of the ethical management system

Category	Performances	
Ethical Management Committee	<ul style="list-style-type: none"> Regular holding of the ethical management committee in order to actively react to the changes in legislations and government policies Operation of effective meetings such as a revision of a code of conduct and report of lectures addressed outside of the company. 	
Integrity Ombudsman regular meeting	<ul style="list-style-type: none"> Securement of an auditorial fairness and objectiveness through regular meetings (4 times) (15 reports, 2 deliberations) 	
Report center	<ul style="list-style-type: none"> Operation of reemployment centers to strengthen the management of retired employees ('16.1) Continued operation of a report center for the Improper Solicitation and Graft Act 	
Feed-back	Self-evaluated integrity investigation	<ul style="list-style-type: none"> Discovery and improvement of weakness and reality of corruption through the degree of integrity diagnosis.
	Ethical management and a level of consciousness evaluation	<ul style="list-style-type: none"> Monitoring of ethical management realities and prediction of risks ('16.12) - Achieving a score of 92.2 (maintaining the ethical management corporate title stage)
	Risk diagnosis of executive members to corruption	<ul style="list-style-type: none"> Diagnosis of a risk level of executive members to corruption and identify corruption factors and let executive members take the lead and set an example ('16.6) - Conducted a survey on 19 questions such as integrity of duties and efforts to implement integrity - Individual integrity score 9.96 in '15 to 9.72 in '16
	Business offices anti-corruption policy	<ul style="list-style-type: none"> Raise integrity awareness and the dissemination of the integrity culture through a self-evaluation ('16.1) - A score of 97.97 in '15 to 98.92 in '16.

Audit performance

(Unit: case, 100 million KRW)

Category	2014	2015	2016
Number of audit cases	575	576	525
Measures according to positions	188	141	125
Administrative measures	378	406	331
Reduction in budget	25	25	61

KEPCO KPS ethical management performance

“Excellent degree in anti-corruption policies”

- Achieving the excellent degree for 3 consecutive years as a result of an evaluation for preventive policies on corruption in public institutions.

2014	2015	2016
Excellent	Excellent	Excellent

“Achieved the first class degree in the overall integrity in 2016”

- The 1st place among the electricity companies in the same category (Type I)
- The 1st place among public institutions

Category	2014	2015	2016
Overall integrity	8.73 (the first degree)	8.49 (the second degree)	8.66 (the first degree)

“Received the grand prize for ethical management Korea 2016 (Public institution section)”



Dissemination of the anti-corruption and Integrity culture

KEPCO KPS operates an anti-corruption and integrity day which disseminates an ethical management phrase through the SMS service every month and sends cases that violated a code of conduct. Moreover, KEPCO KPS constantly improve the system such as an anti-corruption self-policy through the idea contest among all executives and employees. Furthermore, KEPCO KPS implements various activities such as the Bitgaram integrity cultural festival, an integrity reading corner, and a relay of reading integrity books in order for the integrity culture can easily take roots inside the organization.

Operation of the ethical consultation center

KEPCO KPS provides an ethical consultation center for those who need help from unethical situations inside the company such as sexual harassment, inappropriate orders from superiors, and ethical dilemma. Anyone who is an employee in KEPCO KPS can utilize the ethical consultation center in the face of difficulties and the consulted contents are strictly secured.

Enhancement of preventive ethical activities

KEPCO KPS actively reacts to the anti-graft law enforced in 2016 and revised the reporting accepting bribes standards and implemented a methodical system such as writing a manual for prohibition of accepting bribes and establishing a reporting center. In 2016, all executives and employees took an oath of ethical management practices for a voluntary compliance of ethical standards and stationed ethics conservation in each office.

Integrity ethical management training performances 2016

Target	contents	performance
Executives and department heads	Integrity and ethical trainings for high ranking officials	130 people
	Lifelong training	377 people
	Lecture from CEO on integrity and ethical management	93 people
All employees	Anti-corruption integrity policy session	59 offices
	Online integrity academy training	4713 people
	Contractors' integrity meeting	256 places

Operation of the internal control system

KEPCO KPS improves the internal control system through operating a systematic internal auditorial system in order to achieve ‘realization of Global Leading Company through advanced preventive audit measures’ Moreover, KEPCO KPS expands professional trainings and workshops inside and outside of the company in order to secure the professionalism of auditors and established the foundation to secure independence of auditorial tasks. On top of these, KEPCO KPS gave shape to an ethical standard for auditors through revisions of integrity ethical code of conducts so that it can provide guidelines when performing auditorial tasks and eliminates corruption factors in advance.

Future plans

KEPCO KPS promises to foster a more transparent corporate culture and achieve a global class ethical management through ceaseless endeavors as the best ethical management institution that received the first-class degree in overall integrity, an excellent degree in anti-corruption policies, and the grand prize in Korean ethical management.

Corporate Governance



Board of directors' website

Board of directors exchange process



Holding a Board meeting

KEPCO KPS puts a considerable amount of efforts to improve the corporate competitiveness, to secure trust of interested parties and to promote rights through establishment of healthy and transparent governance.

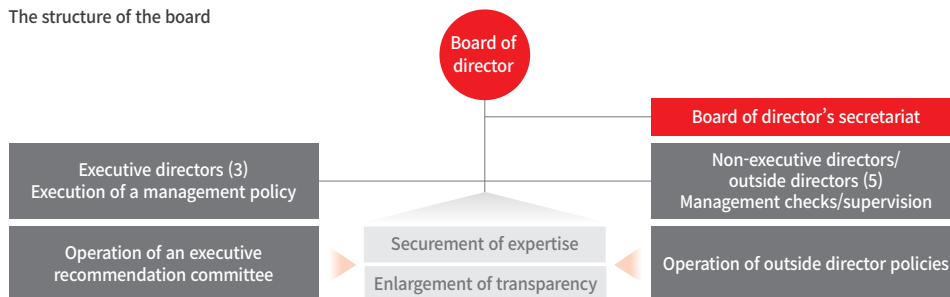
Composition and operation of the board of directors

KEPCO KPS board of directors consist of 8 people in total including 3 executive directors and 5 non-executive directors(including outside directors) and the president also holds a position as a chairman of the board to realize responsible management. There is no discrimination when it comes to select the board members such as gender, nationality, and age, and there are currently 7 men and 1 woman as of '17.05.31. The executive directors plans and conducts goals, policies and business plans of the headquarter within the scope of the management goal and the policy, and reports to the board about the status of tasks more than once every quarters. KEPCO KPS inspects and implements main factors about the sustainable management along with these management strategies and policies. We also control tasks through reports from the board or outside directors when an important issue occurs regarding sustainable management and inspects the issue in the board if necessary. The board discussed important issues such as investment resources for mutual growth, employee welfare funds, an expansion of a portion of salary based on performance, and an operation plan for nuclear plant.

The board of director's collision prevention process

If a board member is personally involved in the board issues, the person cannot participate in the discussion according to the rules and the articles of association, and if there is a board member who is limited to participate in discussion, the person is not counted in the registration. Non-executive directors (including outside directors) are notified about the dates and contents of a board meeting in advance and provided with the materials on time through diverse channels such as the board members only website.

The structure of the board

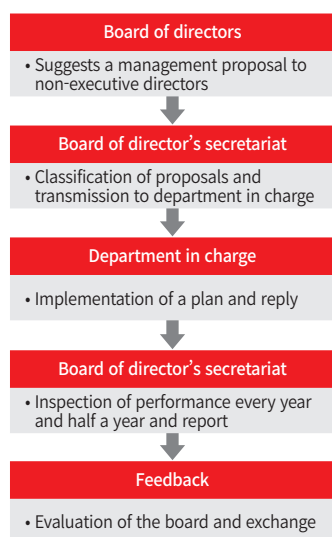


The composition of the board members

(May 2017)

Position	Name	Birth date	Education	Experience	Term
President (chairman of the board)	Jeong Eui-hun	1955. 10	M.A. in Public Administration at Yonsei University	Previous KEPCO KPS chief director of the business management	'17. 01. 25 ~ '20. 01. 24
Executive director (chief director of the business management)	Vacant				
Executive director (chief director of the development industry)	Maeng Dong-yeol	1958. 01	Bachelor's degree in electrical engineering at Pohang College	Previous KEPCO KPS director of the development industry	'14. 12. 09 ~ '17. 12. 08
Executive director (chief director of the new growth business)	Lee Sun-min	1957. 02	Bachelor's degree in German at Sungkyunkwan University	Previous director of the overseas business	'14. 08. 22 ~ '17. 08. 21
Non-executive director	Hyun Sang-kwon	1958. 02	M.A. in Public Administration at Yonsei University	Previous chief director of planning	'15. 10. 29 ~ '18. 10. 28
Non-executive member (outside director)	Lee Jae-gu	1951. 11	M.A. in Mechanical Engineering at Yonsei University	Previous chief director of technology development of central area	'14. 12. 09 ~ '17. 12. 08
Non-executive member (outside director)	Kim Dong-wook	1959. 12	Ph.D. in Policy Studies at Ohio State University	Previous professor of Graduate School of Public Administration at Seoul National University	'17. 03. 30 ~ '19. 03. 29
Non-executive member (outside director)	Choi Won-mok	1965. 10	Ph.D. in Department of Law at Georgetown University	Previous professor of Korean Law School at Ewha Womans University	'17. 03. 30 ~ '19. 03. 29
Non-executive member (outside director)	Ha Yoon-hee	1972. 01	Ph.D. in Energy and Environmental Policy at University of Delaware	Previous visiting professor of green school at Korea University	'17. 03. 30 ~ '19. 03. 29

Management proposal exchange process



Board selection process

KEPCO KPS puts a significant amount of efforts to improve fairness and transparency of the board selection process by conforming to the board selection process defined in the 'legislations regarding operation of public institutions' and the corporate article of association. The president collects candidates through open recruitment and recommendation method and Executive Recommendation Committee consisting of non-executive directors (including outside directors) and civilian committee members, recommends a candidate and the candidate goes through a review and votes by Public Institution Management Committee then finally appointed by the president with a recommendation of the minister of the Ministry of Trade and the term is for 3 years. The president appoints an internal director through a general meeting of stockholders and the term is for 2 years.

Non-executive directors (outsider directors) are appointed by the minister of the Ministry of Trade once passed a general meeting of stockholders and reviews and votes by Public Institution Management Committee and the term is for 2 years. In order to diversify and secure the representative nature of the board members, we asked for a recommendation from the Ministry of Personnel Management and the Ministry of the Gender Equality and Family. We also included the candidate examination standards such as understanding and experience in electricity or energy businesses to the executive recommendation committee guideline and also enhanced independence by excluding participation of executive directors.

Board activation and role enhancement

KEPCO KPS identified improvement issues based on a satisfaction survey targeted at the non-executive directors and the employees in charge of the planning department. Moreover, we perform performance reviews on management every semester for a productive operation of the board. On the other hand, we also actively reflect opinions from non-executive directors on the practical consideration of bill and current management issues through on-the-spot visits and seminars on issues that need on-the-spot visits.

Evaluation and compensation of the board

The board discusses the related items by reporting a detailed management plan and payment contracts, which the president should achieve during the term, to the Executive Recommendation Committee, and report the results to the minister of the Ministry of Trade. Moreover, executive directors are evaluated on the contracts with the president on main issues that needs to be done in that year and payment standards also reflect management performances.

Non-executive directors can pay activity costs needed for carrying out a task, and the payment standards are decided by the president. The most paid employee of KEPCO KPS is a 2.95 times of a median value* of all employees and the limit of payments for president, executive directors and auditors are determined by the general meeting of stockholders and the payment standards and the payment method are determined by the board.

* Median value: the median is the value separating the higher half of a data sample from the lower half.

Role of corporate governance organization

KEPCO KPS's top management team controls economy, environment and social aspects through Ethical Management Committee, Mutual Growth Committee, and Risk Review Committee, and regularly communicate with the interested parties through holding conferences with related organizations such as partner meetings, a customer consultative committee, and IR activity, and have a regular discussion on economy, environment and social aspects. Moreover, the board evaluates policies regarding economy, environment and social aspects and regularly discusses the issues and evaluates risks and opportunities.

Management advisory status using non-executive directors' specialties

Issues	Resolved issues
Active participation in business needed	Active participation in SMART nuclear plant through an equity investment contract of SMART POWER Co., LTD.
Perfectness in implementing controls of nuclear power plants	Inspection of the half a year performance review and establishment of a plan for controlling nuclear power plant
Preparation of process and standards on a release of information	Revision of a release of information policy and implementation of a continual improvement
Inspection of evaluation system and related policies and improvement of inadequacy	Enhancement of a performance fairness and establishment of process conformity plans

Current status of the board

Category	2014	2015	2016
Number of meetings	9	10	7
Voted schemes	24	22	19
Preliminary review rates (%)	100	100	100
Reported cases	7	10	8
Participation rates (%)	84.1	75	82.1
Rate of non-executive directors' speech (%)	95	88	89
Management proposals by non-executive directors	15	15	13

Risk Management

KEPCO KPS prevents risks by identifying risk factors in advance through a structured risk Management system and focuses on business operation. In order to achieve this, KEPCO KPS strengthens financial solidity through regularly securing the risk management infrastructure. Moreover, we perform a pre-emptive risk management method through a self-audit and an internal-control system.

Enhancement of risk management system

KEPCO KPS systematically monitors risks by operating IT based system such as Enterprise Information System (EIS), Enterprise Risk Management (ERM), and Enterprise Resource Planning (ERP). Especially, we select 4 major risk factors and monitor emergencies by drawing a core risk index.

Goal	Risk management and enhancement of the foundation for improving financial solidity			
Strategies	Regular management of financial risk system with the reflection of core risk factors		Operation of the system on the detected financial threats in time	
Risk factor management	Sales risk	Investment risk	Liquidity risk	Exchange risk
Core risk index	Sales, sales cost	Investment risk in new business	Liquidity ratio	Exchange fluctuations risk
Regulation of system	Business Risk Review Committee Internal Accounting Control System	Capital Budget Review Committee Cash-Flow Policy	Exchange Risk Committee Exchange Risk Policy	

Establishment of risk management system

Operation of Business Risk Review Committee

KEPCO KPS secures stable profits of the business by effectively distributes available resources and minimizing business risks and operates the Business Risk Review Committee to maximize the investment effects. Especially, we enlarged targets for consideration and enhanced requirements for inspection stages and re-inspection, and unified the previous functions of the Investment Review Committee to the Business Risk Review Committee.

Enhancement of Business Risk Review

Target	Review stages
<ul style="list-style-type: none"> Direct and indirect financed business (quota investment, M&A etc.) Home and abroad O&M business that exceeds 50 billion KRW Contract of MOU and MOA, contingent liabilities business etc. 	<ul style="list-style-type: none"> 1st stage: before a bid (propriety, profitability) 2nd stage: before a contract (contract risk, negotiation strategy) 3rd stage: before the enforcement (investment of human resources) Categorical checklists (identifying risks -> resolving the issues)

Operation of Capital Budget Review Committee

KEPCO KPS operates Capital Budget Review Committee in order to maximize the investment effects and effective distribution of available resources through a preliminary review and inspection of a capital budget

Target for consideration	Inspection procedure					
Capital budget exceeding a certain amount	Department of management review committee (company housing, tools)	Operation of practical inspection (experience employees and experts)	Capital Budget Review Committee Budget Dept.	The board of directors	Implementation of the business	Follow-up management
All businesses required for risk inspection (investment, non-investment)	Business Selection Committee	Business Department Risk Review Committee	Business Risk Review Committee Strategic Business Support Dept.			

Establishment of financial risk management system

We manages financial risks closely by undertaking tasks such as founding Strategic Business Support Department under Business Management Division, support for project inspection, discovery of strategic business. Especially we secure business stability by hedging risks through an enhanced analysis of investment risks.

Risk Management Enhancement	<ul style="list-style-type: none"> • Enhancement of management for investment risks through an improvement of the risk review system • Reinforcement of risk management through an operation of exchange risk measuring tools index
Liquidity/debts management enhancement	<ul style="list-style-type: none"> • Maintaining the optimum liquidity and securement of the foundation for growth through a structured funds plan • Improvement of extra profits through the Capital Use Performance Management System • Maintenance of stable debt ratios and a zero-debt management through a strengthened debt management

Reinforcement of the internal control system

Goal	Realization of Global Leading Company using a preliminary audit program		
Direction	Establishment of superior auditorial infrastructure	Implementation of preventive risk-centered audits	Reinforcement of feedback on audit results

Supply of professional human resources

KEPCO KPS seek to reinforce auditorial organizations' stability by building new audit institution offices and increasing human resources. Especially, we reinforced audit human resources in overseas sections where they are relatively more susceptible to risks.

Expansion of international cooperation

KEPCO KPS solidifies a cooperative partnership on audit tasks through exchanges with related organizations. We made anti-corruption, integrity and auditorial contracts with Korea Rural Community Corporation and Korea Agro-Fisheries & Food Trade Corporation in the same region. Moreover, we share latest issues on auditorial information by participating the related organizations' audit consultative group.

Activation of audit in the prevention of waste of a budget and vulnerable parts

We improved an efficiency of a comprehensive audit through developing our own checklist on 3 sections called Essential Task section, vulnerable section, and Policy Improvement section. Especially, we prepared an improvement plan through an inspection on general tasks, safety and security along with temporary workers for tightening discipline among government officials. Moreover, we make our best efforts to settle an effective audit that can reduce unnecessary budget through a thorough daily inspection.

Performance of audit activation

Comprehensive audit	Daily audit	Special Audit	Special Inspection
<ul style="list-style-type: none"> • Implemented in 37 offices • 138 Administrative actions • 80 professional actions • A reduction of budget 205 million KRW 	<ul style="list-style-type: none"> • Implemented for 407 times • Suggesting opinions • 143 Administrative actions • A reduction in budget of 5,864 million KRW 	<ul style="list-style-type: none"> • Implemented 13 times • 41 administrative actions • 40 professional actions • A reduction of 6 million KRW in budget 	<ul style="list-style-type: none"> • Implanted on 66 offices (11 times) • 9 administrative actions • 8 professional actions

Stakeholder Engagement

KEPCO KPS listens to the opinions of the stakeholders who directly and indirectly affect our company and reflects this on management activities so that to grow productivity of the sustainable management. We categorize customers, the government, the congress, people, related organizations, stakeholders, investors, cooperators and parties in local communities and manage diversified communication channels customized to each stakeholders.

All executives and employees and labor union

- | | |
|--|--|
| Department of management | <ul style="list-style-type: none"> • Corporate planning department • Human resources & labor management department |
| Main communication channels and performance | <ul style="list-style-type: none"> • Labor conference and meetings (quarterly) • Monthly and weekly meetings with trainings • Expanded executive meetings and strategical management meetings (2 times per month) |
| Core needs | <ul style="list-style-type: none"> • Main agent to implement company's policies • Perform as a partner for policy execution |



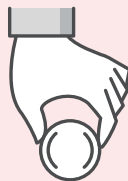
Government, congress, people, related organizations

- | | |
|--|--|
| Department of management | <ul style="list-style-type: none"> • Corporate planning department |
| Main communication channels and performance | <ul style="list-style-type: none"> • Media source • The board meetings (10 times in 2015, 7 times in 2016) • Preliminary release of information (145 times in 2015, 150 times in 2016) • Management announcement (at any time) • Presidential board (3 times) • Public institutions of nuclear power plant conferences (3 times) |
| Core needs | <ul style="list-style-type: none"> • Implementation of public responsibilities • Planning and executing of public policies • Management checks, mutual cooperation |

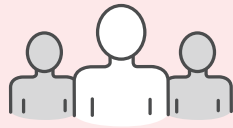


Shareholders, investors

- | | |
|--|---|
| Department of management | <ul style="list-style-type: none"> • General affairs department |
| Main communication channels and performance | <ul style="list-style-type: none"> • Release corporate information (4 regular times, 39 times on demand) • Domestic and international corporate seminar (262 times) |
| Core needs | <ul style="list-style-type: none"> • Raise in the enterprise value |



Customer



Department of management

- Quality and safety department

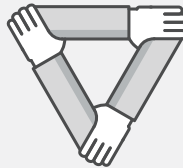
Main communication channels and performance

- Customer satisfaction survey outside of the company (93.4 in 2015, 93.6 in 2016)
- Holding workshops with customers and Customer Advisory Committee (regular)

Core needs

- Improvement in quality competitiveness
- Realization of a flawless maintenance

Partner Company



Department of management

- General affairs department

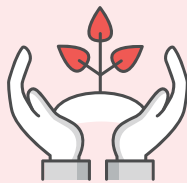
Main Communication channels and performance

- Integrity meetings with partners (256 companies)
- Agreement ceremonies with small companies for a mutual growth and fair trade
- Technique and buying conferences

Core needs

- Mutual growth and expansion of support

Local Communities



Department of Management

- Corporate planning department

Main communication channels and performance

- Selected a local head of an organization and held a local lecture
- Installed a yellow carpet in the elementary school in Naju area, Free movie screening for local communities
- Managed a college supporters in Gwangju and Jeonnam area for KEPCO KPS

Core needs

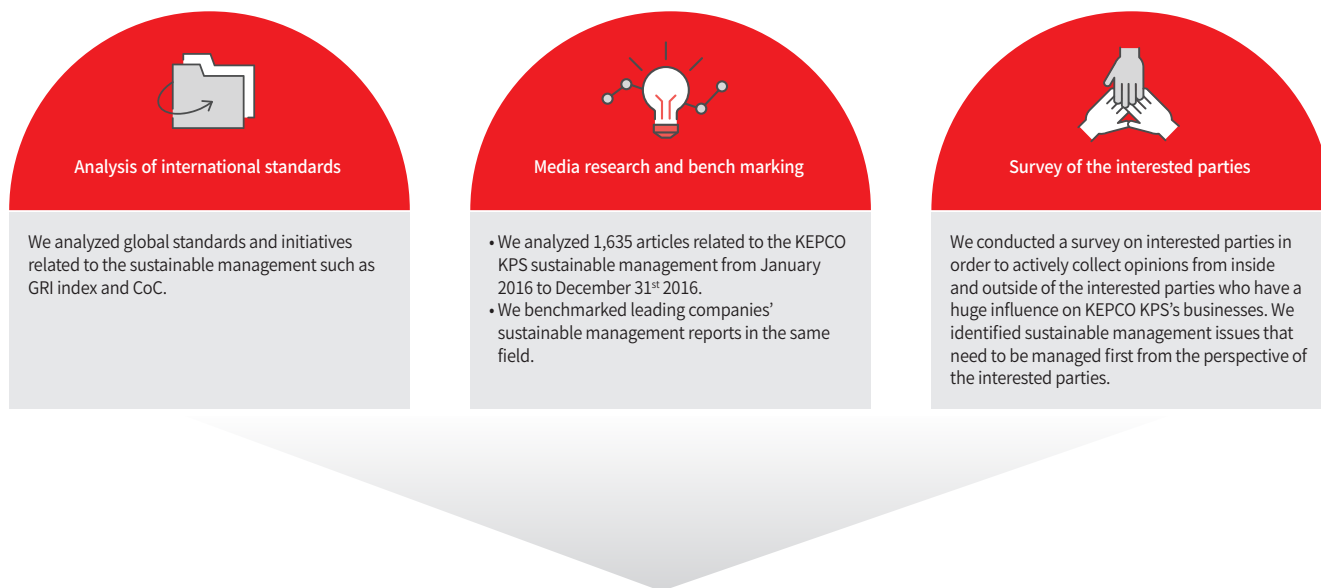
- Contribution to the development of local communities

Materiality Assessment

We performed an importance evaluation to report the related performances on the sustainable management report, and also identified important issues that need to be managed for KEPCO KPS's sustainable management. The importance evaluation follows the global standards called GRI of the sustainable management report that includes the inclusiveness, sustainability, importance and completion of the interested parties.

Step 1. Issue Pool Composition

We compiled an issue pool consists of 32 sustainable management issues that are related to the plant facilities and KEPCO KPS on economic, social, and environmental sections through inside and outside surveys, media research, bench-marking and an international standard of sustainable management.



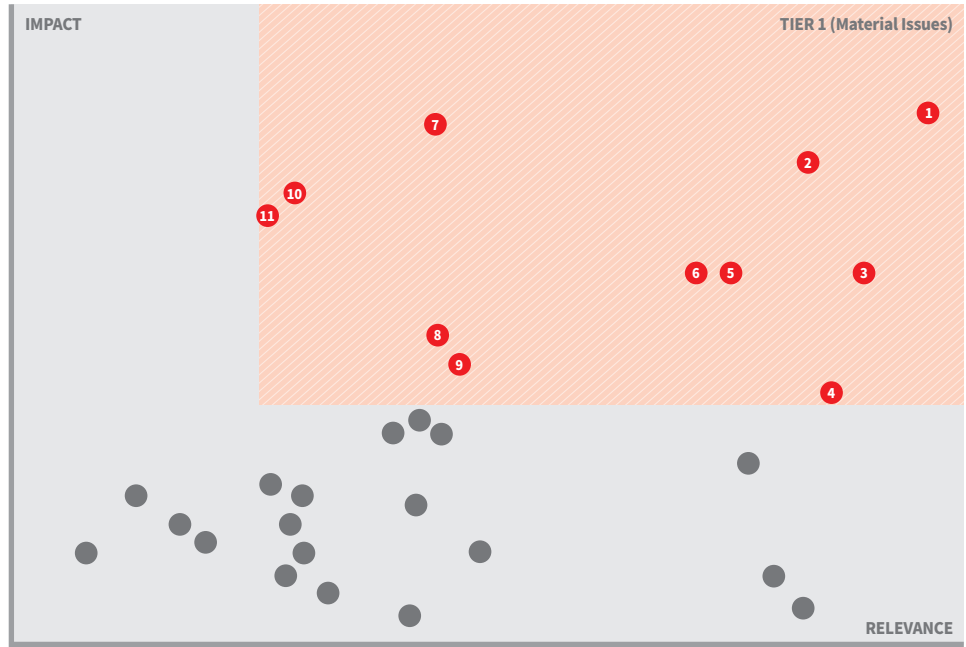
Area	ISSUE POOL		
Economy/ business	<ul style="list-style-type: none"> • Creation of economic performance (increase in sales, contracts of new businesses) • Reinforcement of ethical management and anti-corruption activities 	<ul style="list-style-type: none"> • Securement of future growth engines (development of new businesses, securement of skills) • Enhancement of preventive risk management 	<ul style="list-style-type: none"> • Increase overseas business • Securement of healthy and transparent management of the board
Environment	<ul style="list-style-type: none"> • Introduction of Environment friendly plant techniques • Reinforcement of control over waste release (Water, Air, Contaminated materials, etc.) • Conforming to environmental regulations 	<ul style="list-style-type: none"> • Management of water risks (management of water usage, water quality management) • Reaction to climate changes (control over reduction of greenhouse gases) • Establishment of a global class environmental, safety management system 	<ul style="list-style-type: none"> • Promotion of environment preservation in local communities (preservation of an ecosystem and biodiversities) • Realization of a recycling of resources plant (recycle of wastes, water recycle)
Society	<ul style="list-style-type: none"> • Reinforcement of mutual growth for partners (support overseas routes) • Evaluation and management over supply CSR • Consolidation of information security 	<ul style="list-style-type: none"> • Minimization of damages in local communities because of the business operation • Establishment of a customer safe management structure • Reinforcement of regulations 	<ul style="list-style-type: none"> • Performs a strategical social contribution activities • Enhancement of quality competitiveness for customer satisfaction • Activation of communication and resolving difficulties with the local communities near the power plant
All employees	<ul style="list-style-type: none"> • Realization of a good-to-work company (maternity protection act, life and work balance) • Enhancement of the safety in work sites (forming a safety system in case of disasters, dissemination of safe hygiene culture) • Respect diversity and equal rights (hiring disabled people) 	<ul style="list-style-type: none"> • Open hiring process and selection of human resources with a focus on tasks • Enhancement of human resources in technology field • Security of labor basic rights (freedom of association, prohibition of forced labor) 	<ul style="list-style-type: none"> • Forming a co-existing relationship with the labor union • Establishment of a fair and transparent evaluation system • Enhancement of rights at work sites (including contractors)

Step 2. Main issue evaluation

We evaluated main issues on the basis of social concern(impact)* and business impact(relevance)* through an inspection by sustainable management experts and board of directors.

Step 3. Selection of core issues (Materiality Assessment matrix)

We selected 11 important issues that will be closely dealt in this report based on the social concern(impact) and business impact(relevance).



* Social Concern (Impact): An influence by each issue on the outside interested parties' activities and decision making and an attention of the interested parties in the related issues.

* Business Impact (Relevance): Priority based on CSR strategies, media analysis, and industry issues in order to find out the relation and influence of the business strategy and CSR issues.

No.	GRI Aspects	Material Issues	Reporting boundary					Reporting contents
			Employee	Customer	Supplier	Local Community	Shareholder, Investor	
1	Added Topic	Securement of the future growth engines	●				●	# Expansion of globalization # Diversification of related businesses horizontally and vertically
2	Employment	Open hiring and task-oriented hiring	●			●		# Establishment of a progressive corporate culture
3	Employment	Creating a good-to-work corporate culture	●					# Establishment of a progressive corporate culture
4	Training and education	Cultivation of power plant technique and enhancement of capabilities	●	●				# Establishment of a cultivation system for competitive human resources
5	Local communities	Implementing strategical social contribution activities				●		# Implementation of strategic social contribution activities
6	Procurement practices	Enhancement of a mutual growth with partners			●			# Enhancement of a mutual growth
7	Occupational health and safety	Enhancement of safety and health at work sites	●					# Safety first management
8	Product and Service Labeling	Enhancement of quality to satisfy customers		●				# Enhancement of an original business
9	Economic performances	Creation of a direct economic performance	●				●	# Enhancement of an original business # Expansion of globalization # Diversification of related business horizontally and vertically
10	Energy	Introduction of environment friendly development skills		●		●		# Launch of an environmental management activity
11	Emissions	Corresponding to the climate change		●		●		# Response to the climate change

STRATEGIC ISSUES

STRATEGIC ISSUES

Sustainable Growth	36
Responsible Management	50
Environment Friendliness	60
Respect for Human	66



Sustainable Growth

- 38 Enhancement of an Original Business
- 42 Expansion of Globalization
- 46 Diversification of Related Businesses Horizontally and Vertically



1st place

5 consecutive years
winning the 1st prize for
quality satisfaction index

Only 1 case
reported during
2015~2016

Machinery
breakdown due to
KEPCO KPS's own
fault



2015 **100 %** 2016 **99.9 %**

Conformity rate to air pollution

1

Sustainable Growth

Importance of This Issue



With a changing paradigm to a new climate system, there has been an improvement in productivity through maintenance of plant facilities and increase in the introduction of renewable energy, and in order to lead this trend, it is a requirement to improve facility competitiveness and to prepare for a new foundation for a constant growth.

KEPCO KPS's efforts



KEPCO KPS improves the quality competitiveness and maintenance credibility and elevates an original electricity maintenance business through an effective business execution, and prepares a foundation for new businesses such as ROMM, disassembling nuclear plant, and renewable energy based on above-mentioned capabilities.

KEY MATERIAL ISSUES

Securement of future growth engines

Creation of direct economical performances

STRATEGY DIRECTION

Enhancement of an Original Business	Expansion of Globalization	Diversification of Related Businesses Horizontally and Vertically
<ul style="list-style-type: none"> • Foundation of an electricity facility maintenance system • Establishment of combined database of technical information • Received the 1st prize for Korean quality satisfaction for 5 consecutive years • 1 reported machinery failure by KEPCO KPS • Received the grand prize for Asian quality management 	<ul style="list-style-type: none"> • Overseas sales of 172 billion KRW during 2015~16 • Promotion of EPC Turn Key business in overseas • Establishment of a foundation of ROMM/Retrofit • Establishment and operation of business risk management system 	<ul style="list-style-type: none"> • Establishment and launching a roadmap for 3 strategical skills • Sales of 178 billion KRW through businesses abroad in 2015~16 • Implementation of a new business on turbine market

Enhancement of an Original Business

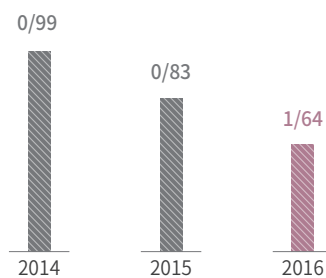
Strategy direction

In Korean generation facilities market, there is an expansion of electricity maintenance field by the Korean civil construction company along with an increase in the inducement generation facility construction. For this reason, KEPCO KPS is gradually put into a competitive market and therefore strengthens maintenance quality and improve customer credibility to stay in the leading position. We also listen to customer opinions and improve customer satisfaction through a customer-centric management.

Improvement of electricity facilities maintenance competitiveness

KEPCO KPS formulates the knowledge infra based on skillful experience and establishes a comprehensive maintenance system for electricity facility maintenance and quality control business and secures a differentiated competitiveness from already formed groundworks.

Overhaul (Unit/Delayed)



Continued improvement of maintenance process

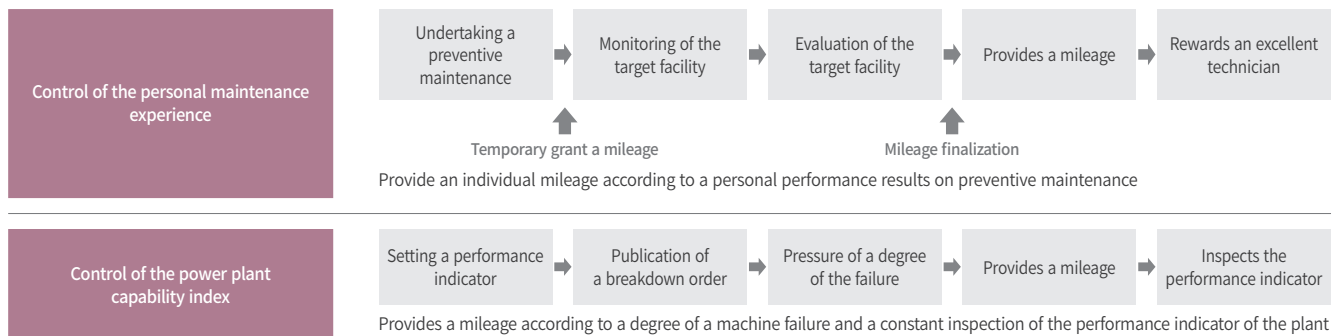
A maintenance task that ignores basics and procedures can lead to a critical accident. KEPCO KPS maintains its own maintenance system that optimizes a maintenance service, and seeks perfection in terms of the maintenance service through revisions of self-evaluation and manuals. We conducted a self-diagnosis based on manuals, maintenance experience, and error preventive methods in mechanical, electricity, and measurement sections, and completed 3,023 cases while conducted 3,373 cases of improvement tasks in 12 offices.

Especially, we developed a comprehensive process guide for maintenance in order to improve the maintenance process. We standardized each composition of each planning that consists of 10 amounting to about 59 business items, and preceded a standardization of the quality through carrying out trainings to the employees at the work sites.

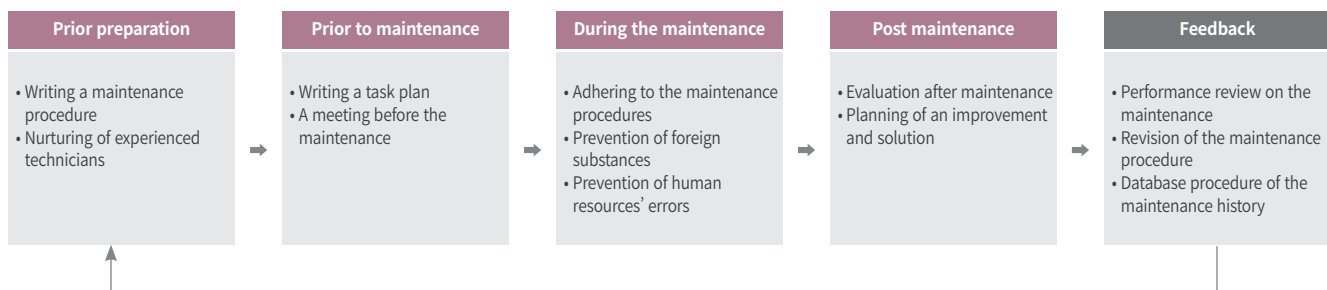
Moreover, we revised preventive maintenance manuals in order to provide a flawless and high quality maintenance service of the preventive planning construction company. we added more items on the preparation steps 6 months prior to the construction such as selection of work items, maintenance of materials and tools, posting a written plan, planning of a quality guarantee, so that it increased from the original 9 preventive items to 20 items. Moreover, we added 1 more item in carrying out and completion stages and strengthened the preventive maintenance ability.

Along with this, we are running a lifelong mileage program from 2013 in order to reinforce the responsibility on maintenance tasks of the technicians. We also provide feedbacks and incentives based on the performance review and the relation to their maintenance experience and the plant's capability index.

Lifelong mileage system



Maintenance process



Establishment of an electricity maintenance structure

We perform diverse activities to ensure a maintenance structure that does a perfect job of the maintenance process and follows the basics and rules. First of all, we inspect basic maintenance checklist by performing a maintenance inspection on work sites on whether they follow the basic guidelines and preventive measures, and we conducted an on-site performance inspection on 19 offices in 2016.

Moreover, we closely inspect whether the preparation, safety procedures, onsite tasks, and preventive human resources error are done or not prior to the construction of electricity facility maintenance by running an on-site inspection team. We conducted an on-site inspection on 14 work sites in 2016 and shared the result through a meeting to establish a maintenance culture and cooperative structure.

On-site Inspection Procedure



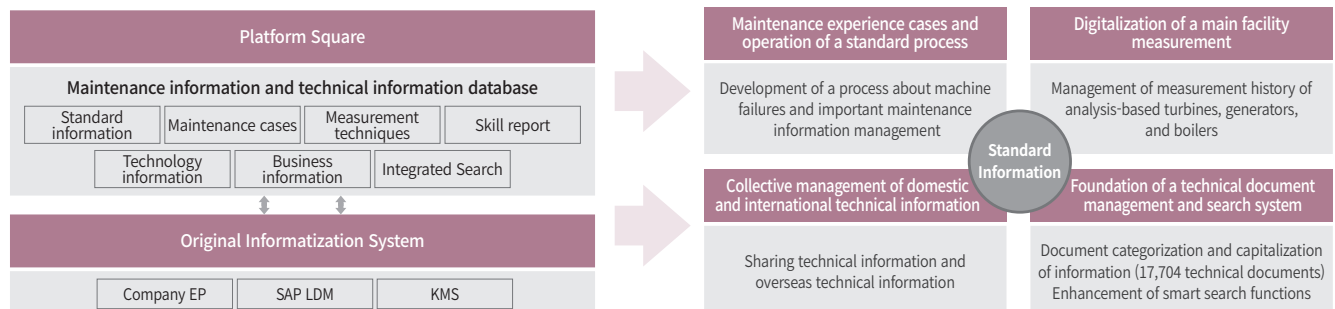
Establishment of knowledge infra through combined database of technology information

For the past 30 years, KEPCO KPS accumulated the maintenance experiences and boasts its differentiated competitiveness. KEPCO KPS formed a platform and collective database on maintenance information and technical information in 2016. Through this big data, KEPCO KPS can react pre-emptively to machinery failures with a preventive diagnosis and evaluation, and created a collective diagnosis service foundation for generating facility that provides a customized and optimized technical service to customers.

Improvement of emergency recovery capability of electric facilities

A stable electricity supply and recovery capability provides safety to victims and connects them to the outside regions in the face of a typhoon, a big fire, and an earthquake. KEPCO KPS enhances an ability to react when a disaster occurs through a periodic training. In 2016, we executed 1 case of radiation emergency training, 8 cases of power system emergency training, 26 cases of disaster emergency training with a total of 35 cases of emergency training. Moreover, we operate a regular recovery training of the power line in case of an emergency. We performed a temporary recovery training of steel towers during the reacting to a disaster Safety Korea Training, and a training to cultivate professional human resources to quickly recover the power line.

Collective DB system on technical information



Securement of nuclear power plant through emergency response services on Gyeongju province earthquakes

The occurrence of an earthquake in Gyeongju province in 2016 sends a message that the Korean peninsula is no longer a safe place from an earthquake, especially causing worries among citizens because of the safety issues of the nuclear power plant to the earthquake. KEPCO KPS issued a red alert according to the emergency guidelines and proved to be able to quickly react to the emergency by calling a meeting of all employees only after 1 hour and 45 minute of the earthquake at 21:30 on 12th September 2016. Moreover, as it is expected that occurrences of an earthquake will increase in the future, KEPCO KPS puts more effort to build an emergency restoring structure by preparing a detailed guideline as to what to do in the face of emergencies.



ISO9001 certified Quality Management System



Raising maintenance quality contest

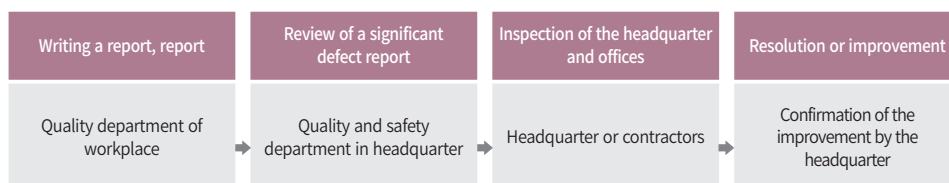
Enhancement of maintenance quality adhering to the basics

KEPCO KPS enhances a quality management structure for a maximum customer satisfaction through flawless electricity facility maintenance, and holds the Quality Management System ISO9001 certificate and maintains through a constant management.

Enhancement of capability and the management system of maintenance quality

In 2016, KEPCO KPS enhanced the headquarters' quality control tower function for a comprehensive maintenance quality management. We ensure that when a significant defect happens to the electric facilities, a real-time reporting system kicks in. We implement Enterprise Resource Planning training such as quality audit system and maintenance quality inspection in order to achieve above-mentioned function, and when executing on-spot maintenance, we prevent any human error by adopting a smart phone application function to check the procedures with an ease. Moreover, we also raised the requirement to hire a quality operator to corporate requirement level 2 or more in order to increase the on the spot reaction capabilities. Along with this, we also introduce a mandatory quality training and developed a textbook for quality training, and executed a visiting quality training on total of 16 offices and on 857 people and raised the awareness of technicians on maintenance qualities by holding a contest to enhance maintenance quality and provided a written oath to 4,399 employees in 64 offices.

Resolution process of a significant defect on electricity facilities



We also reinforced the QVD (Quality Verification Document) inspection system in order to manage the quality of the purchased parts and products needed for maintenance. In order to prevent the fabrication of QVD, we standardized and raised the bar for the quality inspection process for the purchased products by developing an inspection textbook for purchased products and sharing with all offices. Also, we strengthened the guidelines for a taking responsibility policy, an inspection real-name service, a quality inspection form for technical specification and further improved the credibility of the inspection results and the responsibility of quality inspector and recorded 0 case of QVD fabrication through 2 stages inspections system presented by KEPCO KPS.

Reinforcement of quality inspection

In order to effectively operate a maintenance human resource of 213 people during when the electricity facilities inspection demand is the highest, we developed the Quality Inspector Real-time Assistant System (QIRAS) in 2016. It took a long time in the past due to the lack of human resources, so that one has to request a help through telephone or email to other work places, but by establishing the Quality Inspector Real-time Assistant System, it is now possible to figure out the status of operation of human resources and it also improved the effectiveness of the quality inspection activities by planning out for the deployment of human resources.

Quality inspection human resource pool

(Unit: person)

Category	Machinery	Installment payment	Total
Level I	45	43	88
Level II	70	45	115
Level III	19	9	28
Total	134	97	231

Recognized for its leading quality competitiveness

KEPCO KPS, as shown above, strives to take a full responsibility about the products in order to achieve an enhanced electricity facility maintenance competitiveness and increase in maintenance quality, and also puts a significant efforts to secure the leading position in ever more competitive electricity facility maintenance market. KEPCO KPS is highly appreciated domestically and internationally with its superior quality competitiveness.



Appointed as an excellent company for the quality competitiveness section for 18 consecutive years by the Ministry of Commerce, Industry and Energy

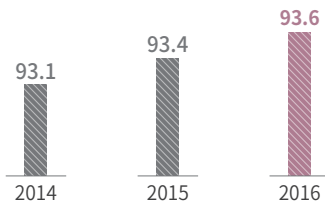


Received the grand prize on Asia Quality Management in '15.08



Took the 1st place for Korean Quality Satisfaction Index for 5 consecutive years '16.09

Customer Satisfaction Index (Unit: %)



Activities to establish and improve the customer satisfaction culture

KEPCO KPS not only take full responsibility to meet the customer's satisfaction but also after the completion of tasks, we still continue to establish and improve the customer satisfaction culture, and constantly improve foreign customer satisfaction.

Firstly, we distributed posters and stickers with our 7 baseline principles of customer motivation service on them to offices and improved the customer satisfaction awareness by letting employees repeat the baseline principles during the safety inspection. Moreover, we implemented a monitoring evaluation system for responses by telephone and customer receptions with 55 offices and 275 employees in 2016 and recorded an average of 98.3 out of 100. Other than this, we also improved customer reception capabilities by providing visiting quality awareness training at 16 offices and 857 employees quarterly for a raised service standard.

C A S E

Excellent performance at the home and abroad quality circle contest



KEPCO KPS actively supports the quality circle activities in which the executives and all employees personally discover and implement quality improvement tasks, and regularly received excellent scores in the domestic and international quality circle contest. Especially, we received the grand prize for 4 consecutive years at the quality circle contest as a representative from Korea ever since 1999 for 17 years. Moreover, we received the president prize, a gold medal and a bronze medal at the national quality cycle contest in 2016 held by Ministry of Trade, Industry and Energy and managed by Korean Standards Association. Ever since its first participation in 1997, KEPCO KPS's 75 quality circle teams have received the president prize and recognized for its excellency, KEPCO KPS became the first public institution that was appointed as the excellent work place for quality circle.

Expansion of Globalization

Strategy direction

The emerging nations are having a hard time because supply cannot meet the demand for electricity due to deteriorated power plants and electricity facilities combined with a sudden increase in demand from the recent economic development. Furthermore, there is a growing need for an improvement in the supply of electricity through maintenance of electricity facilities based on the Paris Climate Accord. These situations are opportunities to KEPCO KPS to challenge a global expansion and discover a new growth engine. Therefore, KEPCO KPS actively considers various ways to expand to overseas business in terms of maintenances for thermal power plants and nuclear power plants.

Improvement of maintenance credibility

KEPCO KPS realizes a flawless maintenance through a structured maintenance process and project managements based on years of experience in generating facilities and specialties and improve the credibility from foreign customers and also improve the name value of KEPCO KPS in overseas new markets.

*ROMM (Rehabilitation, Operation, Maintenance & Management): Improvement and rehabilitation business of deteriorated power plants

*Retrofit: Activity that extends a lifespan and improves productivity through rehabilitation and renovation of core facilities. (Such as turbines of deteriorated power plants.)

**PMP (Project Management Professional): International certificate of knowledge basis project management that organized approaches and methodologies needed for project management

Enhancement of the maintenance process efficiency and specialty

ROMM/Retrofit* it improves and standardizes service quality through an improvement of maintenance process and revisions of overseas new business quality manuals. We improved a customer satisfaction by adding ROMM/Retrofit section to the Quality Management System ISO9001. Moreover, there was 0 case of overseas facility accident in 2016 by operating a process to manage and prevent once there is an accident for a flawless maintenance.

Moreover, we enhanced our management system and specialty by converting 54 overseas technicians into regular workers and introducing the specialized job system in the overseas O&M section, and reinforced the project management capabilities by expanding acquisitions of PMP** and strengthened specialties by focusing on overseas core human resources.

Improvement of efficiency through improvement in project management

We seek to reinforce the risk management against the falling expenditure and revenue of the contractors due to the global economic recession, and improve a project management capability and structure in order to reinforce overseas business competitiveness based on the accumulated business experience and structured control. Firstly, we categorize the degrees of risks based on the probability of occurrences and effects in order to improve the project management capability, and operate by establishing annual risk management plans for each office.

Overseas business status of employees who recently acquired PMP

Before 2015	After 2016
2	2

Risk management process

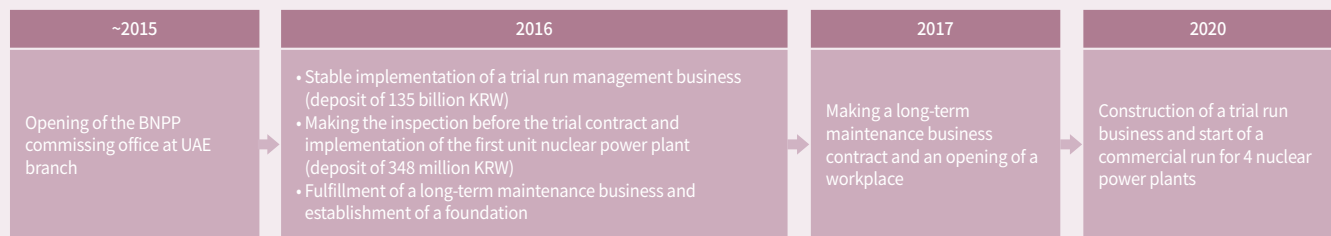


S P E C I A L

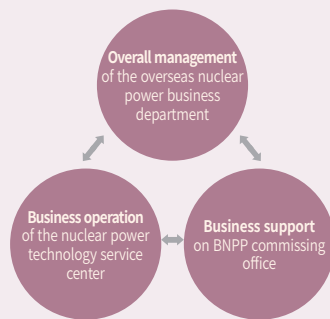
UAE BNPP National project Maintenance through fulfillment Improvement of credibility

The United Arab Emirates' BNPP (Baraka Nuclear Power Plant) construction business is the first massive scale Korean nuclear power plant business in the Middle East that targets to build 4 nuclear power plants. KEPCO KPS participated for the first time in overseas nuclear plant management business ever since the establishment of the corporation and will work on a trial run business and a trial run inspection before the operation. KEPCO KPS achieved a flawless management and seeks to expand its global popularity in the overseas nuclear power plant market based on the above mentioned successful business operations.

BNPP management business Milestone



Internal cooperation system of an inspection before a trial



Contribution to construction on time

KEPCO KPS successfully undertook a business through a stable management system for a pre-trial inspection service and a trial run, and puts a significant effort to establish a stable business foundation and to contribute to the on-time construction of BNPP. We implemented task standardization through 641 maintenance procedures in English and a thorough preventive inspection and stabilization in human resource management. Moreover, we clearly defined tasks for each office among overseas nuclear power business department, nuclear power technology service center and BNPP commissioning office in order to carry out a successful inspection service on BNPP 1st unit before a trial, and we also enhanced inspection capabilities by developing task manuals for transportation of resources for an inspection of the nuclear power plant before a trial and also writing procedures in English for the rest of 2~4 units with an accumulated experience in these cooperation system and operation of business.

Flawless maintenance operation

We are implementing a flawless maintenance and improving credibility of the BNPP maintenance business through quality guarantee activities. We satisfied 36 requests from customers by undertaking 3 trial run maintenance businesses, 1 before trial inspection business, and 1 long-term maintenance business in 2016. Moreover, we conduct quarterly training and self-quality guaranteed activities targeted at all departments of BNPP trial business places by forming a quality guarantee team internally. Along with this, we improve maintenance credibility and customer satisfaction through domestic and international quality guarantee activities such as developing 90 quality management manuals in English and procedures and promote task standardization.

Establishment of a foundation for a long-term maintenance business

We conducted a hiring process in order to obtain adequate human resources with right skills in order to achieve a foundation and a capability of long-term maintenance business. We hired 170 business agents in the fall season of 2015 and obtained a human resource pool of 581 employees by the end of 2016 for the maintenance business. Moreover, we implemented an improvement of a system to train technicians based on SAT*. In order to achieve this, we conducted 3 workshops with SAT experts and formed a special team. Along with this, we formulated a mutual understanding on the importance of the business by conducting 5 seminars about the BNPP long-term maintenance business, and carried out to establish an information sharing and supportive structure with related departments through conferences about maintenance business.

Overall management of a business	<ul style="list-style-type: none"> Selection of human resources and fulfillment of business budgets and registration of visas for employees Access to nuclear power plants/access of equipment
Implementation of business	<ul style="list-style-type: none"> Deployment of technicians and securement of equipment and inspection, purchase of domestic resources and inspection Writing up a business plan and a procedure
Business support	<ul style="list-style-type: none"> Support of maintenance human resources/ maintenance of transportation equipment Purchase of local resources/ quality inspection (QAM)/ acceptance of a procedure

*SAT: Control method for structured training that adheres to the international requirements.

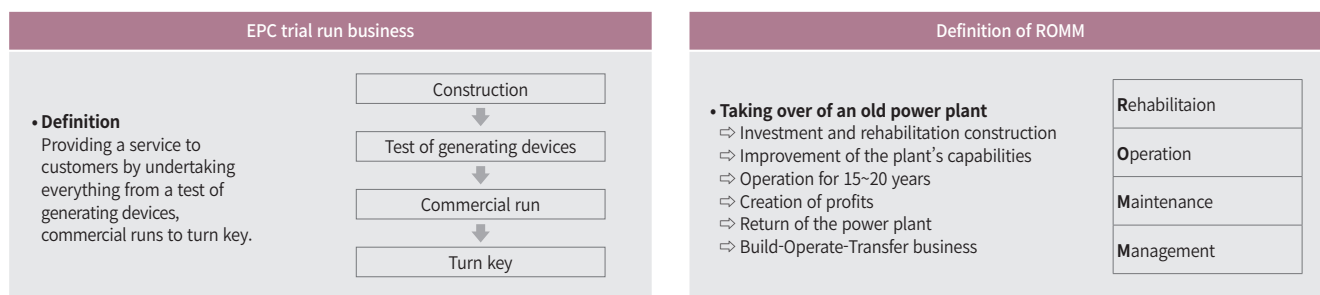
Diversification of overseas business models

Implementation of EPC trial run business

We established a sales strategy that is directed to meet customer needs and discover new profit creating models in order to overcome the recession in the overseas electricity market due to the global economic recession. Firstly, we actively promote the EPC trial business as our new business model because it provides a total solution such as construction, generating devices tests, commercial runs and Key. We formed a road map to secure the specialty of the trial run, and improved the business operation system on the basis of the business operation documents and also won a 25 billion KRW worth of contract obtaining a construction human resources customized to customer needs and sales activities to win 3 business deals with Safi Morocco.

Establishment of a foundation for the ROMM business

Moreover, we provide a ROMM business foundation in order to obtain business opportunities with developing countries that have difficulties meeting the electricity demand due to the old thermal power plant facilities. We hired 7 foreign experts in designing technical section in order to cultivate the needed human resources early in 2016, and formulated a business foundation by making a 5 years long technical contract with German VPC corporation. Furthermore, we implemented supply conference and established task procedures for purchasing resources for overseas projects. For the supply conference, 22 partner companies, 51 companies and more than 100 companies participated in 2015, 2016 and 2017 respectively, and we try to obtain a resource supply vessel. With these efforts, we improved specialties and business operation experience by achieving a sales of 11 billion KRW related to the ROMM business in 2016.



Performance of the cooperation system with electricity and professional companies

Name	Expertise	Contents	Performance
Korea Electric Power Research Institute	Gas turbine	Technical alliance on gas turbine coating techniques ('16.6)	Restoration business of Bandar-Abbas plant in Iran ('16.7)
Korea East·West Power Co., Ltd.	Retrofit business	MOU contract between Korea East·West Power Co., Ltd. and KEPCO KPS with their experiences in operating plants and inspection	-
Bosung PowerTec Co., Ltd	Generation business	Restoration business of overseas plant's O&M, development of renewable energy sources and an independent micro-grid business ('16.8)	-
Canada Vib	Plant business	Support of KPS experts in order to provide an axis arrangement and vibration service ('16.3)	-
Samsung C&T Corporation	Power plant business	Cooperation of maintenance tasks and generating facilities experts ('16.9)	Technical service on Algerian professional maintenance shop ('16.9)
Posco Daewoo	ROMM	Business development in a overseas ROMM section through MOU ('16.8)	Transfer of technical service to Uzbekistan electricity company ('16.8)

Performance of overseas business contracts

(Unit: 100 million KRW)

Category	2014	2015	2016
Amount of order	2,204	393	1,079
Sales	927	1,063	664
The amount of increased sales	78	136	-399
New contracts (item)	2	0	0

Enhancement of contract capabilities in overseas nuclear power plant businesses

KEPCO KPS enhances the overseas new nuclear power plants by planning a mid/long-term business with an analysis of a management environment in order to expand the contract capabilities in the overseas nuclear power plant business, and continues its strategic business about the main business of a target nation.

Overseas mid/long-term strategy

Short-term (~2019)		Mid-term (2020~2024)	Long-term (2025~2030)
<ul style="list-style-type: none"> Expansion of nuclear power plant businesses among nations without related technology Establishment of the foundation for running nuclear power plant service 		Exports of package technologies	<ul style="list-style-type: none"> Demolition business of overseas nuclear power plant Participation in new construction of nuclear power plants
Goal	Securement of capabilities	Expansion of business models	Export of the comprehensive maintenance service
Main task	<ul style="list-style-type: none"> Consolidation of an original contract business Implementation with a focus on target nations Strategic alliance with foreign companies Securement of human resources and equipment Continuation of market popularity 	Transfer of technique package business Construction + Transfer of techniques + Consulting	<ul style="list-style-type: none"> Development of new nuclear power plant maintenance market - Export of a comprehensive service - Establishment of overseas branches (maintenance shop)
Main business	<ul style="list-style-type: none"> Refueling of nuclear power plants in Angra, Brazil and visual inspection 	<ul style="list-style-type: none"> Contract of foreign nuclear power plant maintenance construction through a transfer of techniques 	<ul style="list-style-type: none"> Implementation of a demolition business of foreign nuclear power plants - Participation in newly built nuclear power plants
Main targeted nations	<ul style="list-style-type: none"> Brazil, China 	<ul style="list-style-type: none"> Brazil, China, Taiwan, South Africa 	<ul style="list-style-type: none"> MENA and Asian regions



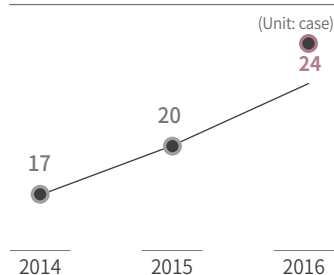
KPS Nuclear News Letter

Performance of ongoing strategies

Category	Contents
Consolidation of an original contact business	Carried out a refueling process of a nuclear power plant in Angra, Brazil ('15.5 ~ '16.7)
Implementation of contracts in main focus nations	Development and management of a local agent for business development in Brazil, China Advertisement of corporations and participation in the Chinese international nuclear power plant O&M conference.
Strategic alliance with foreign companies	Implementation of the first yearly business conference and MOU with SKODA JS of the Czech republic
Securement of human resources and equipment	Securement of 34 technicians and equipment for a refueling process of a nuclear power plant in Angra, Brazil.
Continued implementation of a market popularity	Development of KPS Nuclear News Letter and advertisement to foreign nuclear power plants through sending messages

Diversification of Related Businesses Horizontally and Vertically

Annual performance of a securement of core maintenance technology



*Development of a comprehensive generation maintenance technology, GT facilities rehabilitation maintenance and parts development and automated equipment of nuclear power plant maintenance.

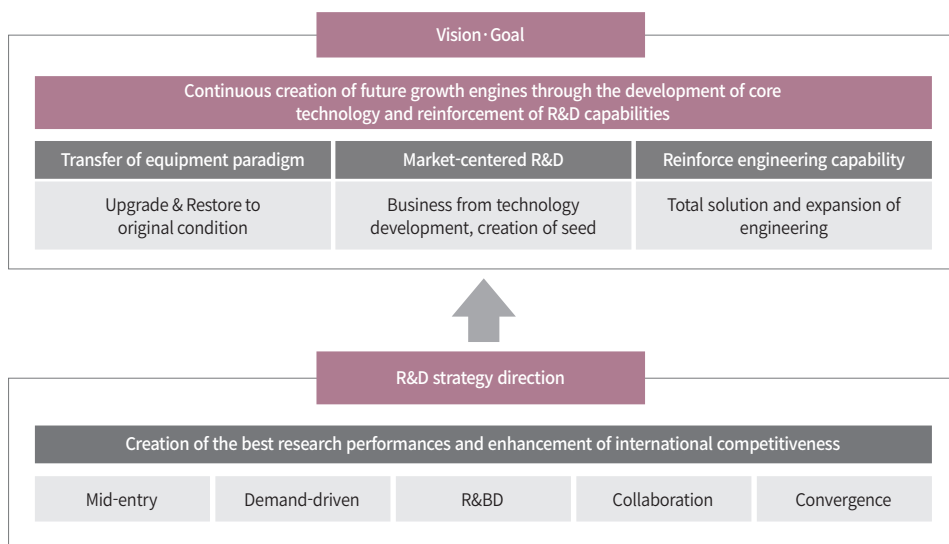
Strategy direction

KEPCO KPS reacts to the environmental changes of international and domestic situations such as an open-door policy of a generating maintenance market and an entry of producers into the market through a consolidation of an existing maintenance business with a close up research development and also continues to secure the leading position in the market by providing top quality products and the creation of customer values. Moreover, we try to secure the foundation to get into a new business such as the demolition of nuclear power plant and rehabilitation of old nuclear power plants, and also secure the future growth engine by expanding R&D activities as the supply of the electricity disseminates and transfers to the demand-centric energy paradigm.

Activities on focused business

Strategies of research development staff and implementation

KEPCO KPS performs a structured research development activities based on technology research & development Institute, technology solution center, GT technology service center and nuclear power technology service center in order to achieve an enhancement of a conversion of maintenance paradigm, a market-centric R&D, and engineering capabilities with the vision to continuously create future growth engines through a reinforcement of core technology developments and R&D capabilities.



	Technology Research & Development Institute	Technology Solution Center	GT Technology Service Center	Nuclear Power Technology Service Center
Organization	<ul style="list-style-type: none"> Research administration team Mechanical and materials group Evaluation group Applied robotics group Electricity IT group 	<ul style="list-style-type: none"> Technical administration team Maintenance diagnosis group Performance improvement group Electricity control group 	<ul style="list-style-type: none"> General affairs team Sales team Quality safety team Engineering team Maintenance team Generator team 	<ul style="list-style-type: none"> Business management team Quality assurance team Engineering team Business operation team Strategic business team
Function	<ul style="list-style-type: none"> Research administration team Automation of nondestructive inspection and welding Equipment for facility diagnosis and elimination Evaluation of an electronic system Engineering service 	<ul style="list-style-type: none"> Engineering service Turbine, boiler, speed regulator, generator Diagnosis of electricity facilities on insulation Diagnosis of vibration, noise and fluid machinery Performance review of a turbine and a boiler 	<ul style="list-style-type: none"> Engineering service High-temperature parts, coating of a body of revolution Welding, brazing, laser process Balancing of a rotational device, Evaluation of a rotor lifespan Development of a related technology 	<ul style="list-style-type: none"> Engineering service Maintenance of a nuclear power plant coolant re-pumping Inspection of a steam, cleansing MOV diagnosis, improvement of facilities Development of related technologies
Human resources	46	94	95	198

KEPCO KPS selected ROMM/Retrofit and a demolition of nuclear power plant business as the new growth engines and established a road map for 3 future technologies and implements various activities in order to achieve these.

3 main technologies target	The demolition of the nuclear power plant	ROMM & Retrofit	New strategic energy business
	Internalization of the ethical management system	Foundation of ROMM & Retrofit	Establishment of strategic energy business
Sections	Decontamination	Diagnosis technology	Manufacture of technology
	<ul style="list-style-type: none"> Decontamination of systems, devices and structures Decontamination of pipings and large containers Development of a mobile electrolytic decontamination robot Radioactive large component Concrete structures 	<ul style="list-style-type: none"> Facility diagnosis, horizontal evaluation, diagnosis Generator, preserving system, electricity transmission Separation control system 	<ul style="list-style-type: none"> Power Monitoring System Battery Management System Human Machine Interface
	Demolition	Diagnosis technology	Manufacture of technology
	<ul style="list-style-type: none"> Containers of nuclear power plants and inner parts Radioactive large devices Concrete structures 	<ul style="list-style-type: none"> System and boiler plan Steam turbine, piping plan Generator, preventive system plan Separation control system, a trial run 	<ul style="list-style-type: none"> ESS blueprint technology Electricity, transmission and manufacture process blueprints System Integration
Inspection	Demolition		
	<ul style="list-style-type: none"> Hiring of new experts Training and education (including OJT) Research tasks by government and self Establishment of a facility system Strategic cooperation system (producer, university research) and test-bed establishment 		
Inspection	Monthly meeting on 3 future strategic technologies: Sharing current issues and status		



Conclusion of a mutual agreement on the demolition of nuclear power plants business and technique development.

Establishment of a foundation for the demolition process

As the first unit of Gori nuclear power plant was decided to permanently stop in operation in 2017, there is an increase in demand for technology development for a demolition technology securement and strategies. KEPCO KPS establishes a demolition strategy and puts significant efforts to develop core technologies through government tasks and internal tasks. Especially, we decided to co-research with Doosan Heavy Industries & Construction Co., Ltd. on the demolition technologies for the next 5 years and decided to share human resources, skills and information and to utilize facilities and equipment together.

Localization of a core inspection technology of core facilities of nuclear power plants

we received an international certificate from EPRI* by developing an automatic non-destructive inspection system (SPACE) which was the first in our country in order to secure the healthy container from the operating nuclear power plant. We were able to secure the healthy container of the nuclear plant through a phased array method which is a future inspection methodology, and seek to continue to commercialize SPACE in the future as a new income source. Moreover, we were able to secure the safety of workers by reducing the amount of exposure to radioactive materials and also the reduction of time of exposure to radioactive materials by developing a welding technique.

Task of demolition technology

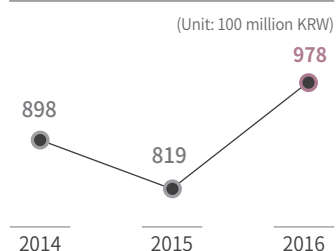
Category	Contents	Term
Government task	Development of demolition technologies	'15. 1 ~ '18. 12
Government task	Development of demolition of pressurized container and interior structures	'16. 11 ~ '20. 12
Internal task	Development of cutting technology of a used steam generator	'15. 1 ~ '19. 12

*EPRI (Electric Power Research Institute)



KPS with Doosan Heavy Industries and Construction Co., Ltd. cooperation agreement

Sales of outside constructions



At the site of SWEET 2016 exhibition

An entry into a new market to improve a comprehensive turbine capability

KEPCO KPS won a contract to improve capabilities of a steam turbine in 2016 and it is the first maintenance company to work on it. We contributed to a national profit creation and prevention of foreign currency into other countries by successfully entering into a new market which is mainly dominated by foreign producers through the improvement task of Bucheon's cogeneration facility by improving steam turbine. Moreover, we made an agreement with Doosan Heavy Industries and Construction Co., Ltd. to improve average of 500MW power plants located in Korea. We established a cooperative structure through this.

Expansion of renewable energy business

Korean government plans to invest 33 trillion KRW to expand renewable energy by 2020 as there has been a world-wide movement to reduce greenhouse gas emissions. KEPCO KPS, in regard to this decision, makes a greater effort to secure business capabilities and promotes a diversification of renewable energy. To achieve this, we separated the renewable energy organization under new renewable energy development department into 2 teams under one department. Moreover, we made a contract with KEPCO KDN and Jeonnam Development Corporation to develop a renewable energy complex such as offshore wind power and solar panel on water, and made a foundation and networks to promote renewable energy business by actively advertising KEPCO KPS's renewable energy business and technique possession when we attended SWEET 2016, a renewable energy exhibition.

Performance of renewable energy businesses

Business title	Ordering organization	Term
Jeonnam Hampyeong Daedong reservoir solar panel construction	Daedong solar panel generator	'16. 12 ~ '17. 03
Gwangju city construction of solar panel on the rooftop of a school	Gwangju city, Gwangju education office	'15. 11 ~ Present

C A S E

Construction of a nuclear power plant service center



KEPCO KPS constructs a comprehensive service center for nuclear power plants in order to form a business structure for supporting special technologies and cultivating strategical business locations along with core founding skills needed for future businesses. The service center is estimated to be completed in 2018 which started its construction in May 2017 in Gyeongbuk Gyeongju city with a budget of 39 billion KRW, and plans to include a professional maintenance team for nuclear power plant. Moreover, it will have an infrastructure for a technology development, training, a product test and large devices. Moreover, it is expecting to see an increase in service, securement of technologies, and improvement of maintenance technologies.



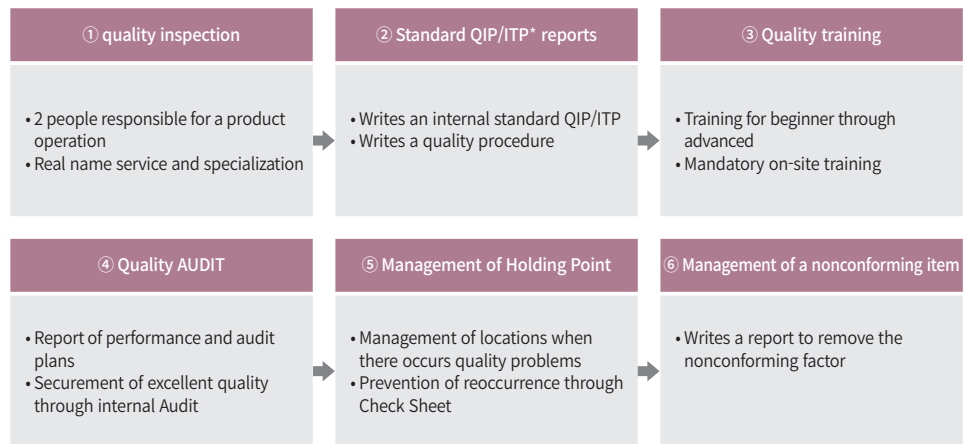
Solar panel construction in Sinboryeong

Enhancement of solar panel business

The solar panel business is one of the energy businesses that the government is leading and the market is expected to expand for this reason, KEPCO KPS hopes to take a leading position in the solar panel industry. In order to do so, we formed a quality structure for a solar panel construction and reinforced quality inspection stages for modules, inverters, structures, and a connector band and improved quality credibility.

The result in pursuing of the flawless construction of a solar panel based on our quality structure, we had completed a solar panel construction, which is challenging work with 60 meters on the ground and 34 degrees scarp, in 'Sinboryeong' steam power plant from November 2015 to June 2016. Through this successful work, we raised our quality reliability and consecutively obtained the order of the solar panel construction from Dangjin coal yard in December 2016.

Solar panel construction quality process



*QIP: Quality Improvement Program

*ITP: Inspection and Test Plan

Foundation of system to implement ESS related businesses

As the renewable energy industry is growing, the availability and profitability also increases in the ESS field. KEPCO KPS formed an ESS business promotion group to conduct a market research, foundation for business platforms, and drew solutions to enhance capabilities. Specifically, we made a foundation through establishment of product purchase plans, test and inspection procedures for technical suggestions, revision of a quality manual for special businesses, writing a business plan and sales activities. Also we improved the technical capabilities through a collection of technical documents and research activities and through 3 years of participation in home and abroad expos in Korean smart grid conference.

Future plans

KEPCO KPS will continue to improve the customer satisfaction through reinforcing business capabilities using a comprehensive database of an original business maintenance process and technical documents in the future. We will lead the renewable energy section using an accumulated experience and expertise of business operations over years and expands new businesses domestically and internationally based on the improved customer satisfaction.

Responsible Management

52 Implementation of Strategic Social Contribution Activities

56 Enhancement of a Mutual Growth



Excellent cases evaluation
of Soopsarang

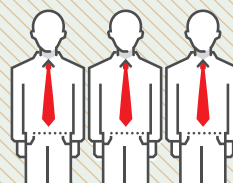
**Received the
grand prize**



Social contribution
hours per person

17.3 hours

4 hours increment compared to 2014



A mutual growth
assessment

Satisfactory

2 consecutive years of
satisfactory degree

2

Responsible Management

Importance of This Issue



KEPCO KPS recognizes the responsible management as a mandatory task for a corporate's sustained management through improved characteristics of social contributions and supporting partnership companies based on the purpose of a foundation which is to provide a stable supply of electricity through the generating facility's maintenance techniques.

KEPCO KPS's efforts



KEPCO KPS contributed to the local communities through a dream home project, pro bono activities, general volunteer works, and donations, implements 5 strategies such as an expansion of safe management, an improvement of capabilities of partner companies, formation of partner companies' sustainable foundation, a foundation of eco-system for a mutual growth and an expansion of home and abroad routes.

KEY MATERIAL ISSUES

Implementation of strategic social contribution activities

Enhancement of a mutual growth

STRATEGY DIRECTION

Implementation of strategic social contribution activities

- Formation of groups and enhancement of social contribution structures
- Implementation of Professional volunteering activities utilizing business characteristics (Local communities, education · culture, Environment protection activities)
- Promotion of fund raising events

Enhancement of a mutual growth

- Formation of a group for a mutual growth
- Activation of communication among partners
- Dissemination of safe management of partner companies
- Support partner companies for mutual growth
- Expansion of a purchase for second class corporations
- Creation jobs in private sector
- Establishment of the co-existent payment system
- Activation of fair trade culture

Implementation of Strategic Social Contribution Activities

Strategy direction

A corporation must value social contribution responsibilities as well as economic values. Furthermore, it needs to fulfill a sincere social contribution activity that can last long instead of just one time contribution. In order to achieve this, KEPCO KPS takes social responsibilities through the dream home project, pro bono activities, general volunteer works, and a donation.

Activities focused on main points

Formation of groups and enhancement of social contribution structures

KEPCO KPS established a strategic structure for social contributions that reflects features of the task under a foundation purpose in order to contribute to a stable supply of electricity through a generating facility maintenance technique. Moreover, we formed and operate the Hanmaeum volunteer group in order to carry out an efficient social contribution plan. We continue our volunteering works in order to co-exist in the local communities by the participation of all executives and employees.

An emblem for Hanmaeum volunteer group

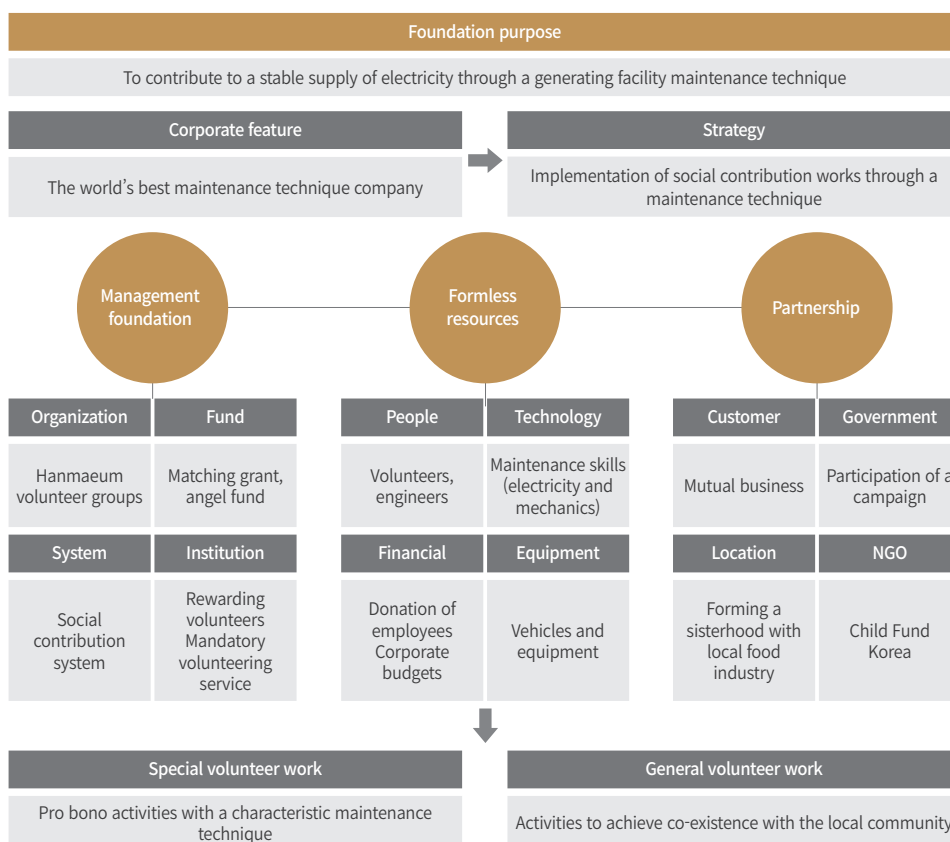


An emblem for Hanmaeum volunteer group signifies a happy society by a shape of a heart by two people.

Social contribution slogan

“Individual shares,
makes a unified world”

The slogan of Hanmaeum volunteer group shows a dedication to co-exist with the world and help people in need by providing necessary helps.

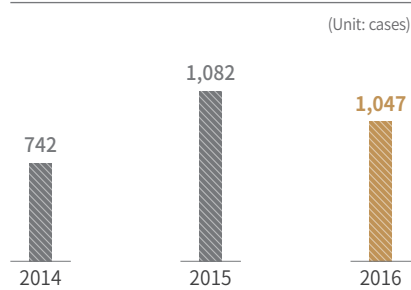


Professional volunteering activities

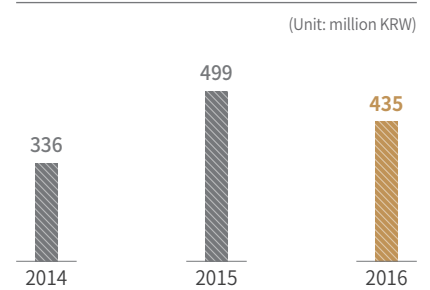
KEPCO KPS performs professional volunteer works for public profits by utilizing various capabilities possessed by employees through pro bono activities connected with the corporate core capabilities. We also carry out various volunteer works that utilizes professional skills such as inspection of maintenance of machinery and stability of electricity supply to the poor and also shared the necessities in overseas such as in India, UAE, Philippines, and Madagascar.

Results of professional volunteer works

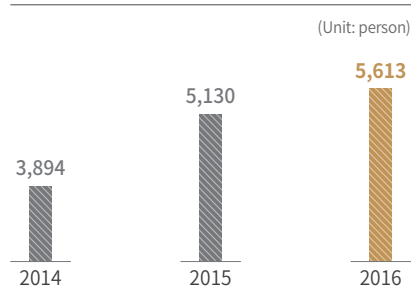
Activity cases



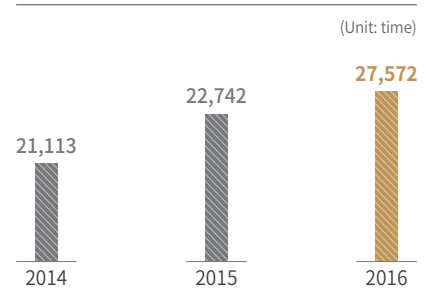
Cost of activities



Number of participants



Time spent on activities



Supplying electricity to low-income families



Machinery inspection



Donation of talents

Supplying electricity to low-income families

There are many groups of people who need our help such as children without parents and senior citizen who lives alone. KEPCO KPS implements a business to provide stable electricity supply through a change of an old wiring and an inspection of electricity facilities for the poor people. We seek a sincere volunteer service through the Simbongsa call in which we provide a visiting home care service by visiting senior citizens who live alone and inspect the facilities as well as health of the seniors.

Machinery inspection

KEPCO KPS provides an inspection for machineries that are old in the local communities with an accumulated experience in maintenance technologies possessed by employees of KEPCO KPS. This not only extends the lifespan of old machineries but also provide a repair of houses, and a switch of wiring.

Donation of talents

KEPCO KPS implements a volunteer work in a form of donation of talents in which they transfer the skills and techniques in terms of maintenance skills to partner companies. Especially we lead an improvement in the similar industry and also the achievement of a stable electricity supply through professional education target for maintenance companies. We contribute to the cultivation of future human resources by providing lectures to high school students of the local community.



Social contribution activities for local communities (delivery of briquettes)



2016 college supporters starting ceremony

General volunteer activities

KEPCO KPS contributes to the development of local communities through diverse volunteer activities such as community contribution activities, activation of the local economy, support of the farms, supports of the children education, interactive experiences, helper activities and environment friendly activities.

Community activities	<ul style="list-style-type: none"> • Community contribution activities <ul style="list-style-type: none"> - Making kimchi, delivery of briquettes, delivery of packed lunch, distribution of food, blood donation • Activation of the local economy <ul style="list-style-type: none"> - Sisterhood of one company to one village, sales of local goods, purchase of Onnuri gift cards, volunteer works • Support the agriculture activities <ul style="list-style-type: none"> - Helping the agricultural activities, taking photos of a general, walking marathon to prevent dementia
Education and cultural activities	<ul style="list-style-type: none"> • Support activities to aid children education <ul style="list-style-type: none"> - Education of children on electricity safety, experience of media occupations, study helper after school • Cultural experience helper activity <ul style="list-style-type: none"> - A helper of cultural experience, taking care of a disabled friend, invitation of employees' families, college supporters
Environmental preservation activities	<ul style="list-style-type: none"> • Environmental cleansing activities <ul style="list-style-type: none"> - An agreement to take care of Baemesan mountain and cleansing of the environment, planting tree event, inspection of a mountain fire, feeding wild animals, environment preservation activities

Performance review of the local community

	Cases	Cost (1000 KRW)	Participants (people)	Time spent (Hour)
2014	951	131,858	4,830	17,187
2015	1,207	201,678	7,960	23,314
2016	1,071	205,728	7,115	21,753

Performance review of education and cultural activities

	Cases	Cost (1000 KRW)	Participants (people)	Time spent (Hour)
2014	105	7,152	572	2,059
2015	157	25,012	483	1,920
2016	105	11,637	409	1,499

Performance review of the environment preservation activities

	Cases	Cost (1000 KRW)	Participants (people)	Time spent (Hour)
2014	785	799	10,632	29,319
2015	1,115	927	12,983	43,936
2016	1,157	4,298	14,001	50,217

BEST - PRACTICE



Received the grand prize for the Soopsarang excellence evaluation

KEPCO KPS received the grand prize for the Soopsarang excellence evaluation in November 2015 in Damyang for its inspection activities and constant cleansing environment activities of the mountain Baeme. Soopsarang activities reflect KEPCO KPS's dedication to preserve the environment of local communities and also to help community development.



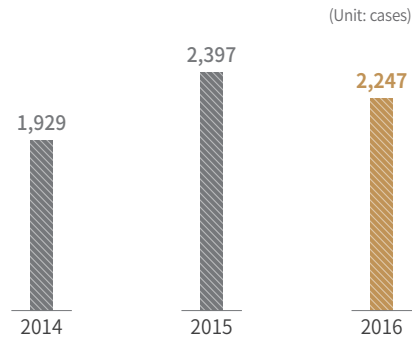
Fund raise event (sending love of rice event)

Fund raise events

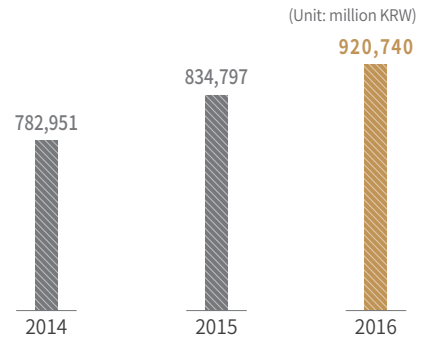
KEPCO KPS shares and helps the poor community by donating necessities and supporting living expenses for seniors who live alone and low income families as well as proceeding employees' participation funds (angel fund), company supporting fund (matching grant), and business funds to help local communities.

Performance review of fundraising activities

Activities



Activity costs

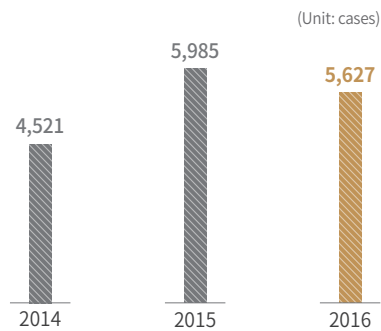


Future plan

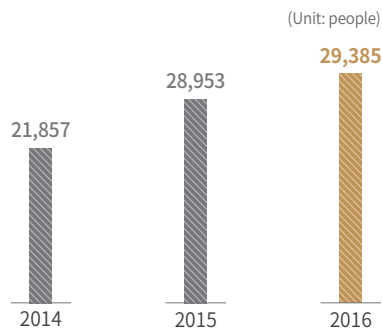
KEPCO KPS implements social contribution activities that seek co-existence of local communities and corporations by proceeding with strategical social contribution activities instead of the past simple social contribution activities. We seek to perform a leading role in sustainable management as a respectable public institution.

Performance review of social contribution activities by KEPCO KPS

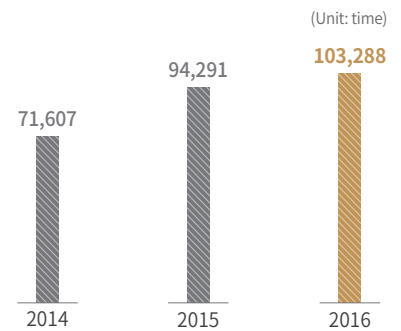
Number of social contribution activities



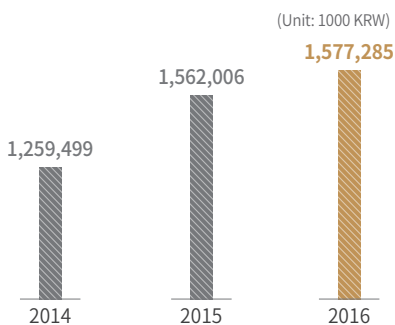
Participants of social contribution activities



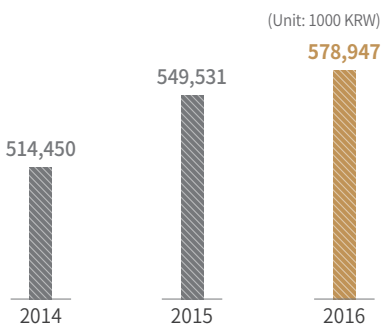
Time spent in social contribution



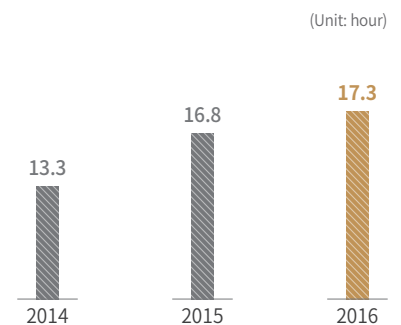
Fund spent on social contribution



Amount of annually raised angel fund



Time spent on social contribution per person



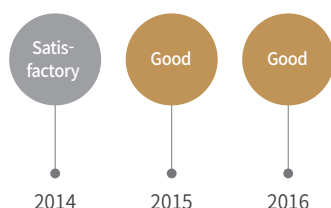
Enhancement of a Mutual Growth

Strategy direction

Mutual growth with corporation is gaining popularity as a new management paradigm. This is because a mutual ecosystem enables a sustainable management. We undertake 5 strategies namely, a dissemination of safe management among partner companies, improvement of partners' capabilities, an establishment of a foundation for a sustainable growth of partners, a formation of a cooperative ecosystem for a mutual growth, and an expansion of domestic and international routes. We monitor and plan for strategies and tasks to achieve them.

Goal	Structured mutual growth through cooperation				
Strategies	Dissemination of safe management among partner companies	Improvement of partners' capability	Establishment of a foundation for a sustainable growth of partners	Formation of a cooperative ecosystem for a mutual growth	Expansion of domestic and international routes
Tasks	<ul style="list-style-type: none"> Protection of employees Safe system Zero-accident movement 	<ul style="list-style-type: none"> Quality management system Maintenance technique tasks enhancement 	<ul style="list-style-type: none"> Improvement of operations of partner companies Improvement of cash stability 	<ul style="list-style-type: none"> 1 work place 1 partner business Activation of skills and business cooperation 	<ul style="list-style-type: none"> Establishment of overseas supply chain Seminar for skills and purchase
Monitoring	Supporting business seminar	Conference with partners	Survey on a mutual growth	Inspection and analysis every quarter	

Results of a mutual growth business



Main activities

Formation of a group for a mutual growth

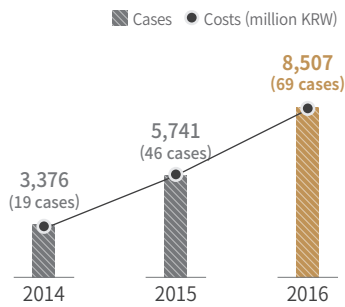
We operate a special team in each department under small companies' service center for a mutual growth task with KEPCO KPS in order to achieve a sustainable mutual growth. Especially, a mutual growth task team consists of 19 members based on importance awareness of mutual growth businesses, and manages a mutual growth task development, inspection and feedback of performances, and a management of profits and detailed tasks. We also discover a mutual growth task for each office through a support group.

Activation of communication among partners

KEPCO KPS obtained a diverse online and offline channels to realize an ultimate mutual growth through a collection of opinions and continuous communication with partner companies, and reflect a periodic satisfaction survey on a mutual growth policy.

Communication channels		Contents	
Online	Main webpage	Customer help	• Suggestion and complaint of a customer and online counseling
		Sinnungo	• Collects opinions about corruption and bribery such as a request of an acceptance of bribery
		Complaints for partner companies	• Inappropriate cases according to an inappropriate procedure and discomforts
		Wasteful budget center	• Cases of a wasted budget such as an illegal usage of budgets and funds
	Mutual growth webpage	FAQ/Inquires	• Submits inquiries about management of partnership companies and participation of supporting businesses
		Complaints	• Suggestion of a supporting company and complains about management of a company
Offline	Partner conference		• Collects complaints and sends a dedication for a mutual growth
	CEO on-site conference		• Collects opinions while visiting nation-wise offices
	Periodic and temporary general meeting of stakeholder		• Submission of complaints from diverse stakeholder
	Korean generating facility conference activities		<ul style="list-style-type: none"> Share of information on new technology about generating maintenance business through an annual conference meeting Training to improve maintenance skills working with related organizations

Performance of cash fluidity expansion



Dissemination of safety management culture to partner companies

KEPCO KPS operates an on-site safe inspection to ensure a safe working environment for partner companies. We inspect and guide realities of the safety management of employees in partner companies regularly and support and improve risk factors in advance. Moreover, we protect electricity industry workers from dangerous working environments by mandating signing up for 'labor insurance' and paying for the costs. We also implement safety training 2 times a year for employees at partner companies in order to prevent accidents and disseminate cases of accidents in the similar working environment.

Flawless movement working with partner companies

It is a movement to eliminate industry accidents through a preventive movement to raise awareness about accidents led by both owners and employees. KEPCO KPS makes a safe working environment through calendars, posters, slogans, and stickers based on 3 principles of flawless movement which are safety first, zero, and safety contest based on participation from partner companies.

Reinforcement of partner companies capabilities

We provide a capability enhancement for maintenance techniques in quality management system so that the cultivation of professional human resources and improvements of operation limitation of quality system can be possible among partner companies.



Expansion of home and abroad outlets

KEPCO KPS supports an entry into overseas market with partner companies by forming an overseas supply chain for small companies and helps small companies to expand domestic and international routes by supporting outlet channels and holding of technique purchase seminars.

Expansion of a purchase for second class corporations.

We fulfill our social responsibilities and tasks as a public institution by supplying routes through expansion of a purchase rate from small companies, female-owned companies, disabled-owned companies and social enterprises.

A purchase ratio of second class corporations

(Unit: %)

Type	2014	2015	2016
Small company products	82.11	85.52	83.04
Female-owned company products	Item	8.76	10.13
	Service	9.76	5.61
	Construction	9.95	11.56
	Total	9.46	9.58
Disabled-owned company products	0.20	0.50	0.62
Social enterprises products	0.37	0.59	1.08

Creation of new jobs in private sector

KEPCO KPS carried out 4 main strategies to strengthen an expansion of outsourcing, an expansion of investment business, strengthen of civilian partnership and reinforcement of front and end supports in order to create new jobs for mid/long-term strategies. We managed to hire 3,696 employees in 2016 which is a 24.9% increase from 2014.

Performance review of creating jobs

(Unit: person)

Year	Organization capacity	Category	Outsourcing	Investment business contracts	Partnership in civilian sections	Total
2014	5,160	Regular worker	1,606	141	151	1,898(64.2%)
		Contract worker	859	148	53	1,060(35.8%)
2015	5,455	Regular worker	1,639	51	678	2,368(68.1%)
		Contract worker	936	55	117	1,108(31.9%)
2016	5,707	Regular worker	1,802	172	719	2,693(72.9%)
		Contract worker	692	186	125	1,003(27.1%)



Co-existing payment system agreement ceremony

Enhancement of a foundation for sustainable growth of partner companies

KEPCO KPS identifies demands from newly registered companies and already partnered companies and reflects and improves these on operation policies of our cooperating companies. We improved the difference in registration lifetime according to the point of registration and an original regular registration by unifying the registration lifetime of our partner companies to 3 years, stipulated a period for raising an objection as 7 days prior to the selection of poor partner companies through an evaluation of partner companies. Moreover, we support a cultivation of human resources and a sale increase at the same time by participating in a tender through a formation of consortium during the operation of domestic and international businesses to create a growth opportunity and a transfer of technology through maintenance businesses.

Establishment of the co-existent payment system

We formed and operates a 'co-existent payment system' that enables a payment to be used as a cash at a low cost, equivalent to public institutions, prior to the payment day, and guarantee payments on partner companies that are below the 2nd class. The establishment of the system was completed by December 2016 through the business agreement with NH Bank and we plan to launch an aggressive advertisement through an internal management standard in the future.



Agreement ceremonies with small companies for a mutual growth and fair trade

Establishment of a launching system to activate the fair trade culture

KEPCO KPS set a goal of 'realization of a leading company through a dissemination of equal opportunities and the justice business culture' to achieve a constant mutual growth through a formation of a fair transaction culture with cooperators and promotes 10 action plans for 3 strategies, namely, an enhancement of fairness awareness, an improvement of unfair customs and systems to achieve the above-mentioned goal. We put significant efforts to grow with the cooperators by regularly listening to the complaints to achieve a mutual growth that guarantees fair opportunities and competitions.

Settlement of complaints from cooperators

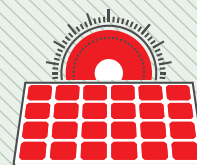
Complaints	Solution	Result
Demand for a co-existent program	Initiation of a cooperator's technical qualification incentive (2016. 04)	Support of a cultivation of cooperator's multifunctional maintenance human resources
Limitation of cultivating its own human resources	Provides opportunities such as structured maintenance skills · quality · safety training	Reinforcement of cooperator's employee capabilities
Availability of cooperator's registration only during the designated period	Improvement of a registration system by taking applications all the year round at all times (2016. 04)	Improvement of entry barrier regulations and expansion of business opportunities
Fairness issue of the registration lifetime	Differentiation of a regular and non-regular registrations (unifying 3 years within the registration period)	Resolution of administrative burden because of re-registration

Future plan

KEPCO KPS improves the mutual growth business based on the CEO's strong will expression, and discovers an actual mutual growth program through a demand analysis of small companies and continues a supportive business through a constant monitoring. Furthermore, we strive to realize a co-existent company that ultimately leads a mutual growth with small companies.

Environment Friendliness

- 62 Launch of an Environmental Management Activity
- 64 Response to the Climate Change

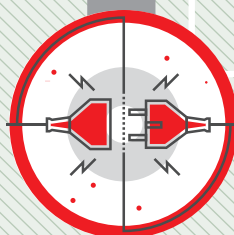
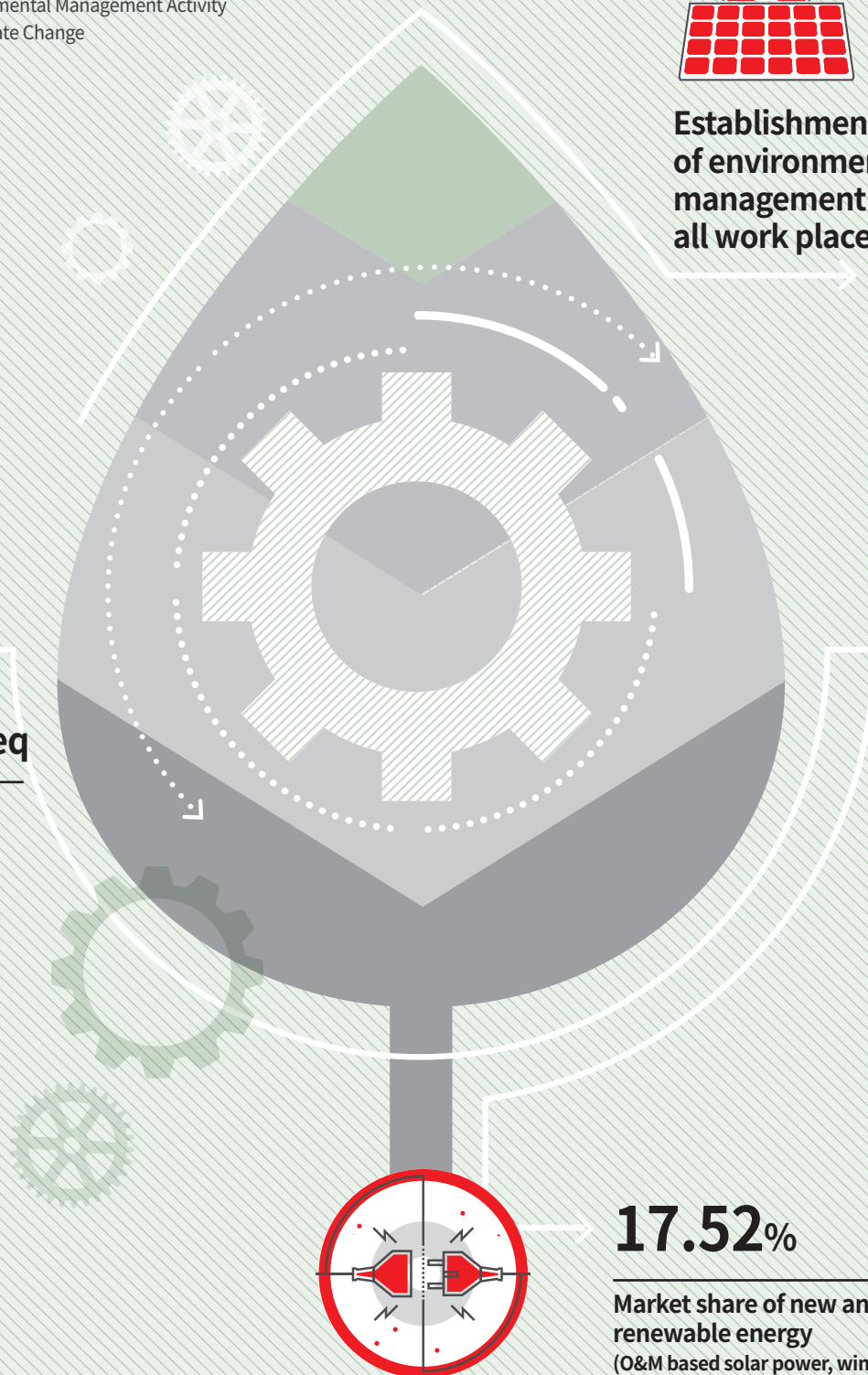


**Establishment
of environment
management system in
all work places**



5,995tCO₂eq

**Greenhouse gas
emission quantity**



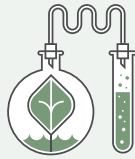
17.52%

**Market share of new and
renewable energy
(O&M based solar power, wind
power, hydro power)**

3

Environment Friendliness

Importance of This Issue



Corporations try to reduce environmental effects from the process of business operation in the face of deepening issues of world-wide environmental problems such as global warming and resource depletion. This preemptive action to environmental problems does not only reduce environmental risks and also positively affect corporation's reputation.

KEPCO KPS's efforts



We implement environment friendly activities through a structured environmental management system across the enterprise. Moreover, we actively respond to climate change through technique development and business expansion of renewable energy and greenhouse gas reduction activities.

KEY MATERIAL ISSUES

Reaction to the climate change

Implementation of environment friendly development techniques (expansion of renewable energy business)

STRATEGY DIRECTION

Launch of an environmental management activity

- Acquisition of the Quality Environment Management System (ISO 9001&14001) certification
- Reinforcement of waste disposal management
- Strict management on contaminants (toxic substance, air and soil contaminants)

Reaction to the climate change

- Establishment of reduction goal for greenhouse gas emission
- Enhancement of greenhouse gas reduction activities
 - Expansion of environment friendly vehicle business, improvement and reduction plans for energy usage in company buildings
- Expansion of renewable energy business

Launch of an Environmental Management Activity



Certificate of an environmental management system

Strategy direction

KEPCO KPS seeks a sustainable development that takes future generation into account. For this, we launch environmental management activities by establishing environmental management system throughout the company and implements environmental management in management activities with a participation of executives to change the awareness.

Enhancement of environmental management system

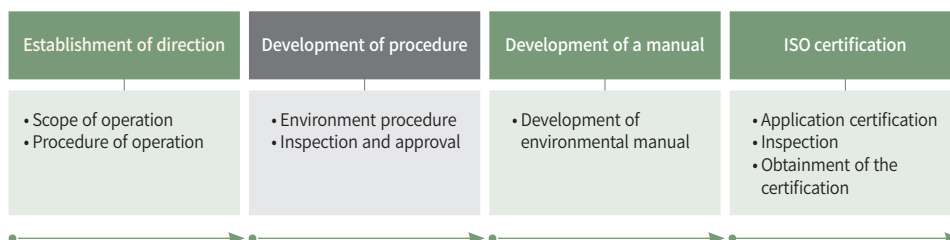
KEPCO KPS achieved a comprehensive quality environmental management system (ISO 9001 & 14001) with a goal of 'a global business partner leading the green energy'. Especially KEPCO KPS operates and establishes its own environmental management system at GT maintenance facility center and obtained certificate ISO 14001.

Work sites environment improvement activities

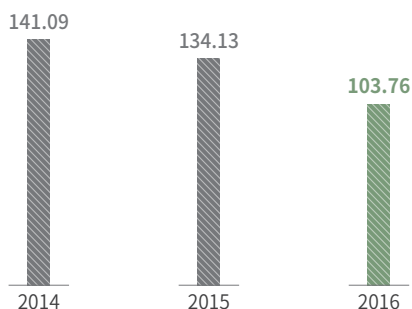
Management of wastes

We try to take full responsibilities in terms of an environment by sending a message to all employees that 'customer's maintenance is our maintenance' even though we do not possess enough facilities. We established a system that focuses on on-site trash management and strictly manage all the byproducts produced on site by adhering to the environmental guideline provided by the power plant. Moreover, we established a corporate culture along with diverse environment friendly activities such as recycling of papers, management of toners, recycling of trash and collecting papers.

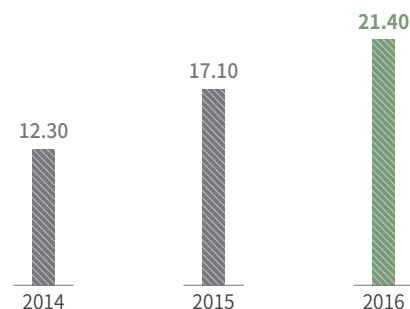
Obtained a certificate ISO 14001



Amount of wastes (Unit: ton)



Amounts recycled (Unit: ton)



*Amount of waste generation: headquarter, plant center, GT center
Amount recycled: headquarter

Performance of safety training for harmful chemical staff

Year	Number of trainees	Remarks
2015	132	There were many people since it was the first year of the training
2016	107	

*The expiration date for training in 2015 is 2 year and employees who got training in 2015 are excluded for training in 2016.

*MSDS: name for controlling chemicals and toxics. Recorded document of risks, threats and effects to an environment

Thorough management of hazardous materials

We use a Material Safety Data Sheet (MSDS) from a purchase stage and thoroughly manage by following guidelines and controls of the environment managers by recording usages and leftovers of harmful chemicals on MSDS.

Moreover, we conduct safety training to all employees dealing with hazardous materials according to the Chemicals Control Act and operate to protect workers and an environment by appropriately reacting to an emergency though safety training among managers who personally deal hazardous materials. We provide hazard threats to workers in advance by deploying MSDS to sites that use various toxic materials and try our best to save an environment by handling, categorizing and returning of hazards according to its information.

Air and Soil Pollutants

KEPCO KPS GT Technology Service Center (4 kind atmospheric management plant) takes measures such as attaching measuring equipment to check whether the pollutants coming out from the exhaust facilities meet the emission allowance standards. We operate filtering and dust collecting facilities and adsorption facilities and conduct atmospheric environmental measurement in accordance with the Air Quality Conservation Act to make efforts for environment friendly management.

Air Pollutant Emission

(Unit: ton)

Category	2014	2015	2016
Dust	9.85	8.70	8.15
NOx	0.02	0.02	0.02

- Air pollutants emission is confined to Gas Turbine Technology Service Center that possess own factory
- No soil contaminating substances



Environment purification activities for Baemae Mountain

Implementation of environmental purification activities of Baemae Mountain

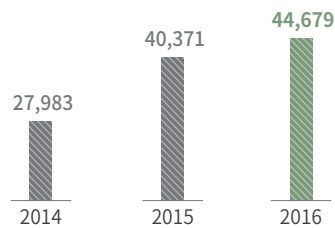
Baemae Mountain is the only mountain in Naju innovation city where KEPCO KPS moved it's headquarter to. KEPCO KPS develops environmental purification activities for Bamae Mountain to ensure a clean natural environment for people living in Naju innovation city. We held 'Bamae Mountain reserve activity agreement' with the presence of the governor of Jeollanam-do, the mayor of Naju city, and the president of KEPCO KPS in March 2015. KEPCO KPS performs activities such as recovery support staff and patrol for pollution in case of natural disasters along with a patrol for an environment of Bamae Mountain.

Water usage

There is no supply company that gets affected by water usage as we use the water supply service, and all wastewaters are drained or assigned to other professional companies to handle. Moreover, we manage and measure wastewater amounts by assigning a company every 2 seasons a year and manages the water quality to be within 80% of a limit for drainage. We were never reported for environmental violation as we never use CFC or ozone damaging chemicals.

Usage of water

(Unit: ton)



* Combination of workplace data from headquarter, plant center, GT Technology Service Center and 6 other workplaces that use own company buildings.

Future plan

KEPCO KPS will establish environment friendly power plants by improving old plants (efficiency, output, lifespan) as the old power plants in Korea amounts to 31% of the total power generation. Moreover, we will actively reduce wastewater and greenhouse gases that occur during the task by raising awareness of employees and applying environmental friendly management system to company policies.

Reaction to the Climate Change

Strategy direction

With an increasing international concern to climate change, the demand for obligation burden on a reduction of greenhouse gases increases. KEPCO KPS manages fuel usage on every vehicle it owns and energy usage on every company building and registers on National GHG Management System according to 「Guidelines on Goal Management for Public Institution Greenhouse Gas and Energy」 which is enacted and announced based on 「Framework Action Low Carbon, Green Growth」 in March 2011.

Greenhouse gas reduction activities

KEPCO KPS attempts to fulfill environmental responsibilities as a public institution by achieving the government's mid-long term greenhouse gas emission plan which is to reduce the greenhouse gas emission by 30 percent from 2005 to 2020. To do so, we established and operate a reduction plan for greenhouse gas emission by reducing 2 percent every year from 2016 to 2020 and perform management and improvement by establishing a reduction plan for greenhouse gas emission from our own vehicles and company buildings. KEPCO KPS possess 388 diesel cars (car, van, freight car, and special car) and 72 gasoline cars located at 60 offices including the headquarter and continues to manage vehicle energy use and greenhouse gas emission by recording them. On the other hand, we put a significant effort to continuously reduce the energy use through an efficiency improvement and reduction in energy for originally owned company buildings.

Energy usage (buildings)

(Unit: TJ)

Energy usage category	2014	2015	2016
Electricity	28.943	39.516	52.099
Steam	0.631	-	-
Kerosene	0.220	1.441	0.110
LNG		2.501	0.325

Data scope: KEPCO KPS owned buildings only (headquarter, Busan, Daegu, Gwangju, plant business center)
A big fall in LNG usage due to the change in a heat source from moving the headquarter

Energy usage (Vehicles)

(Unit: TJ)

Energy usage category	2014	2015	2016
Gasoline	2.406	2.842	2.632
Diesel	31.798	39.801	43.962

Greenhouse gas emission

(Unit: tCO₂eq)

Category	2013	2014	2015	2016
Scope 1	2,926.09	2,414.94	3,217.23	3,295.77
Scope 2	1,586.12	1,499.37	2,047.11	2,699.05

Greenhouse gas emission vehicle section

(Unit: tCO₂eq)

2013	2014	2015	2016
2,899	2,400	2,992	3,271



Participation in SWEET renewable energy exhibition

Expansion of renewable energy business

It is expected that the domestic and international renewable energy market is rapidly growing after the government's 7th renewable energy supply plan and national greenhouse gas reduction plan after the Paris Agreement on Climate Change. KEPCO KPS does its best to follow the trend by expansion of renewable energy facilities. Especially, renewable energy (wind, solar, and biomass energies) business development to EPC and O&M, we participate in overall business markets and plans to expand business area through a business development. Moreover, we expanded business ability through a formation of network and continuous trade with visiting organizations at the exhibition and advertisement of technologies by participating SWEET renewable energy exhibition held by Gwangju Metropolitan City.

KEPCO KPS installed a solar panel on water of 2MW grade in Daedong reservoir in Hampyeong-gun and puts an effort to expand renewable energy facilities. Solar panel on water is gaining popularity for resolving the issues of a land solar panel which is to secure the land.

Market share (O&M)

(Based on December 2016)

Category	Total capacity (MW)	Performance capacity (MW)	Rate of share (%)
Solar panel	3,716.3	116.9	3.15
Wind power	1,051.0	6.0	0.60
Small hydro	203.4	28.0	13.77

EPC performance result (Recent 2 years)

Year	Construction name	Facility capacity (MW)	Performance area
2015	Sinboryeong Solar panel	2.90	EPC (Completed)
2016	Daedong solar panel on water	2.00	EPC (Under construction)
2016	Dangjin Solar panel	3.40	EPC (Under construction)

Improvement of a business system for renewable energy construction

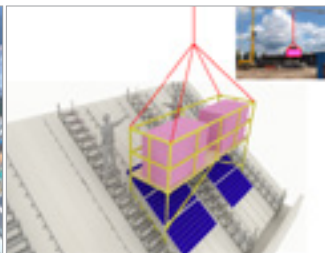
Original	Improved
<ul style="list-style-type: none"> • Lack of participation and multiple tender construction • Lack of management procedure in each construction • Lack of professionals to inspect and plan renewable energy sources 	<ul style="list-style-type: none"> • Foundation of a target, capacity, and business participation • Development of procedure and check-list for each category • Participation of expert education and securement of professionals

- Contract target: O&M business and construction that is over 1MW by public institutions or local government
- Procedure development: standardization of an order, procedure for categorical check-list and risk management

Sinboryeong solar panel construction

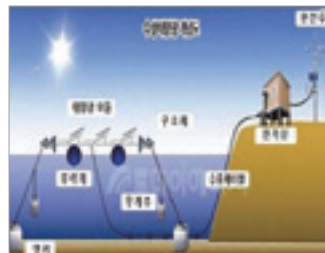


Completion



3D simulation of on-site construction

Daedong solar panel on water construction



Concept of Floating Solar Farm



Construction site

Future plan

KEPCO KPS targets to lead a renewable energy section as a public institution with the expansion of renewable energy market followed by the global climate change and government policies. We try to do our best as a professional corporation for renewable energy through a structured business by cultivating professionals at the renewable business section.

Respect for Human

- 68 Establishment of a Progressive Corporate Culture
- 70 Establishment of a Cultivation System for Competitive Human Resources
- 72 Safety First Management

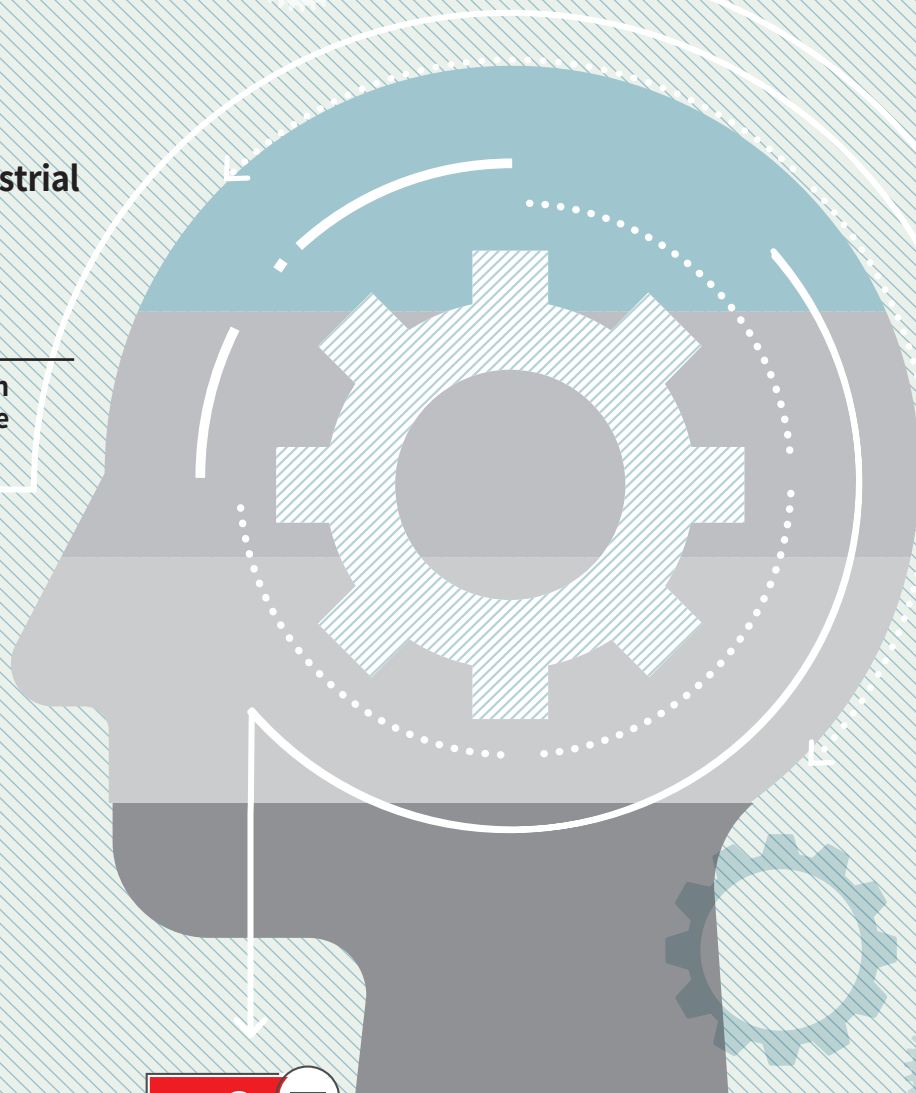


Grand Prize for Great Place to Work in Korea

Rate of Industrial Accidents

0.01

0.01% reduction compared to the previous year



Improvement of employees capabilities

Training cost per person 1.62 million KRW
Training day per person 8.1 days

4

Respect for Human

Importance of This Issue



Corporations must protect human rights such as a self-realization of employees, accident prevention, an improvement of labor conditions for minority, and a prohibition on discrimination. We can reduce human resource related issues such as human rights or safety of employees through above-mentioned methods and we can make a foundation to secure competitive human resources in a long run.

KEPCO KPS's efforts



We not only work hard to realize a better working culture for all employees but also establish a structured system to discover talented employees to focus on cultivation of talented individuals. Along with this, we also try to make a safe working culture for employees to work in a safe environment.

KEY MATERIAL ISSUES

Open-minded hiring process and selection of talented human resources based on job relevancy

Creation of a good working environment

Cultivation of human resources for development techniques and enhancement of capabilities

Enhancement of safety and health at the work places

STRATEGY DIRECTION

Establishment of a Progressive Corporate Culture

- Introduction of NCS based aptitude test for talent identification
- Expansion of hiring a social vulnerable class
- Improvement of working environment for non-regular workers
- Settlement of family friendly culture

Establishment of a Cultivation System for Competitive Human Resources

- Establishment of infrastructure for cultivation of human resources (Operation of in-service training institute)
- Establishment of a structured human resource development system
- Implementation of 4 main capabilities such as basic capabilities, leadership capabilities, job capabilities, qualification development etc.
- Enhancement of the third generation future growth business capability

Safety First Management

- Enhancement of the safety health management system
- Continuous expansion of safe health infrastructure
- Management of a customized safety system and program
- Enhancement of safe culture expansion activities
- Securement of disaster safety management capabilities

Establishment of a Progressive Corporate Culture



Prize for the NCS based hiring process

Strategy Direction

KEPCO KPS establishes an adventurous corporate culture through a creative thinking method. We select talented human resources based on duties through an effective method and manage a hiring process with an open mind. Moreover, we put significant efforts to let employees happy through an adventurous corporate culture.

Selection of talented human resources based on duties and an open-minded hiring process

Introduction of the NCS based competency standard hiring process

KEPCO KPS hires talented individuals based on the KEPCO KPS's own definition of the right people which has keywords such as global, customer-centric and professionalism. Especially we introduced NCS (National Competency Standard) that evaluates with a focus on job relevancy at the work sites to perform an open-minded job relevancy centered hiring process from 2015, and we continue to upgrade the hiring process by reorganizing duties and reflecting it upon the hiring process. KEPCO KPS is recognized home and abroad by receiving the minister prize by the Department of Employment at the NCS based hiring contest in November 2016 and this proves that KEPCO KPS sets capability as the top priority instead of specs.

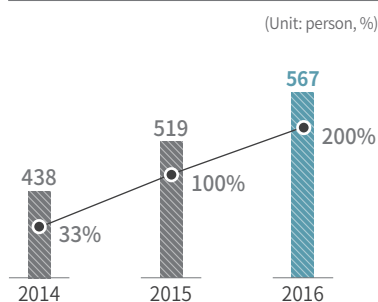
NCS hiring process

1 st stage: Screening	2 nd stage: Evaluation of performance	3 rd stage: Competency interview	Personality test
<ul style="list-style-type: none"> Language scores, certificates, additional scores, NCS performance based applications 	<ul style="list-style-type: none"> NCS major tests NCS vocational competency 	<ul style="list-style-type: none"> Individual interview Presentation interview 	<ul style="list-style-type: none"> Fitness evaluation

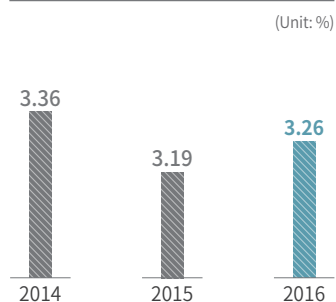
Open-minded hiring process

KEPCO KPS contributes to local communities and the nation as a public institution and expanded hiring for minorities in order to fulfill social responsibilities. we expanded hiring for relatively disadvantaged social classes by hiring disabled people for 3.26% (mandatory hiring rate 3%), individuals from non-capital regions (74.4% of the total hiring capacity) and high school graduates (30.8% of the total hiring capacity). We also expanded hiring for women employees who are relatively less in the facility maintenance industry.

Conversion ratio of non-regular workers to unlimited contract workers in each year



Employment ratio of handicapped workers



Employment status

Category	2014	2015	2016
ratio of females	155 (3.2%)	206 (3.9%)	216 (3.9%)
ratio of females in employees among whose ranking are higher than team leader position	2 (0.04%)	2 (0.04%)	2 (0.04%)
ratio of handicapped employees	3.36%	3.19%	3.26%

Stable Employment by Improving Treatment and Rational Management for Non-Regular Workers

KEPCO KPS attempts to improve hiring conditions for non-regular workers by promoting senior employments who are 55 or older, conversion of non-regular workers to regular workers and an improvement of a payment system.

Current operation status of non-regular workers

Senior contract workers	Project contract workers	Professional contract workers	Regular contract workers
322	233	3	9
Utilization of senior know-hows and business support in generating equipment	Project construction human resources	Utilization of professional knowledge and skills such as business management experts and engineering	Support in special tasks such as diving and health care.

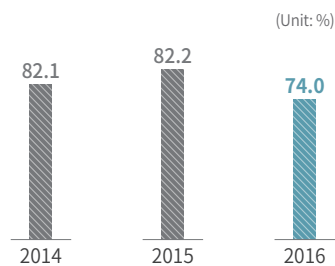


Culture experience festival



Grand prize for an excellent working environment

Result of employee satisfaction survey



*It can't be directly compared as the survey institute was changed from Korea Standards Association to GPTW in 2016

Building a favorable corporate culture for employees

Settlement of a family friendly culture

KEPCO KPS helps employees to sustain happy working life and find a good balance between work and life. We conducted an employee survey to improve happiness and support work and life balance for employees and added a focused working policy on top of the originally implemented flexible working hours. Moreover, we operate and form various activation plans for employees to actively utilize the flexible working hours.

Plan to activate flexible work hours

Category	Content
Change of awareness	<ul style="list-style-type: none"> • Operation of flexible work hour days (every Fridays) ⇒ Operation along with the corporate bus • Encourage using, encourages executive staffs to utilize it as a leader (setting of goals in case of low performance, performance management)
Formation of infrastructure	<ul style="list-style-type: none"> • Increase in convenience through a formation of flexible work hours ⇒ Computerization of application, approval, and performance
Diligence management	<ul style="list-style-type: none"> • Management of diligence along with the internal portal ⇒ Securement of stabilization of an autonomy and responsibility

Discovery and operation of a foundation for a family-friendly policy

We try to create a better working environment by discovering and implementing various methods for employees to smooth adaptation who have been deployed to local head offices and try to improve working life satisfaction for employees by realizing family friendly corporate culture.

KEPCO KPS received the grand prize for an excellent working environment in Korea by recording a high score in the internal satisfaction survey held by GPTW Institute in December 2016.

Programs for a family friendly policy

Program	Remarks
Implementation of Naju history exploration and a visitation of family to the headquarter for settlement	21 people participated
Cultural experience day (special symphony orchestra, movie watch day)	3 times
Festival on a safety day for invitation of family to raise safety awareness	3 times
Improvement of infrastructure through operations of a daycare center at works	19 workers got the benefit

Fair performance review and compensation

KEPCO KPS conduct a structured and fair performance management on all employees from a headquarter and offices to adequately compensate their efforts. We categorize evaluation groups by each organization's characteristics such as facility types, size, and types of duties and perform group evaluation by selecting an appropriate evaluation index by actively collecting opinions from employees. Moreover, we also created an individual evaluation system by developing a personal standard index that relates personal performance with the goal of the organization, and improved fairness and transparency of the performance management by preparing a feedback system through a performance review satisfaction survey and a formal objection procedure.

Future plan

KEPCO KPS values human resources the most. KEPCO KPS strengthens a foundation for sustainable development and improves happiness of employees' families through a balanced life.

Establishment of a Cultivation System for Competitive Human Resources



Human Resource Development Institute

Strategy direction

KEPCO KPS achieves improved capabilities among employees through a development of various systems to grow as a creative and leading company along with an ever-changing global era. We also achieved a comprehensive cultivating human resources policy after categorizing training system into core capabilities, leadership capabilities, performance capabilities, and personal development. We achieved this along with the development of KEPCO KPS organization and development of employees' capabilities.

Enhancement of capabilities and cultivation of human resources in generation techniques

Operation of in-house training facilities

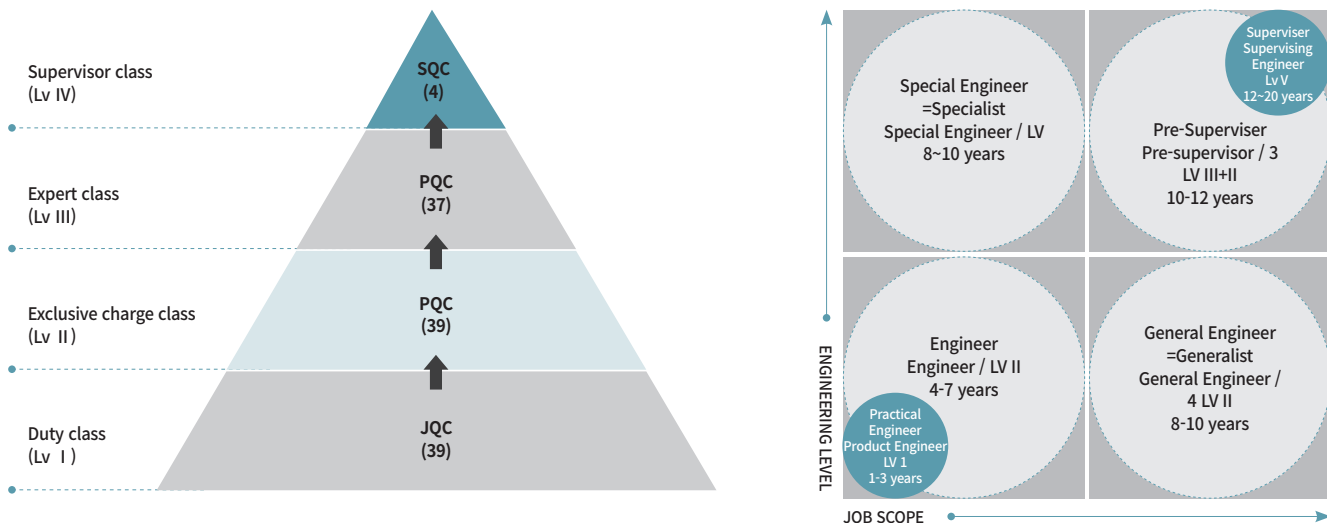
We operate in-house training facilities (Human Resource Development Center, Nuclear Maintenance Training Center) to improve maintenance techniques of employees' capabilities. The Human Resource Development is located at Chungcheongnam-do, Taejeon-gun, and has state of the art classrooms, professor research laboratories, maintenance practice units, dormitories and other facilities. These facilities enable executives and employees to get training in theories and practices and we carry out development of audiovisual training aids and executions of practice programs that directly help for on-site tasks through a research and an introduction of overseas new technologies.

KEPCO KPS have been operating a training facility for nuclear power plants since 1990 with the intention of cultivating maintenance human resources needed for a development of nuclear power plants. We play the role of locomotive in terms of generating units and usage rates of nuclear power plants through a task-oriented training and an establishment of special maintenance processes.

System of corporate qualification

KEPCO KPS operates a system of corporate qualification based on the on-site practice experience and training at in-house training facilities to make training from the in-house facilities more meaningful. The system of corporate qualification was recognized by the Ministry of Labor by passing the 'Internal business qualification test' in 2000, and was selected as an excellent corporation for managing the system of corporate qualification in 2015.

System of corporate qualification





Training site for each duty



Business training for 3 future growth engines

Establishment of a system for a structured development of human resources

KEPCO KPS establishes a system for a structured development of human resources to improve specialties of employees. Firstly, we discover an adequate program through need system training and a development of task capabilities. We discover and implement an adequate training program through a through diagnosis process by an education training council and a beforehand-review council and through a cross inspection by business departments and training facilities.

A system to discover needs for a capability development and education training.



Implement of education for each ability

KEPCO KPS puts an aggressive effort to improve employee capabilities to achieve 4 goals which are Global Ace·Leading a global stage·customer-centered thinking and securement of the top skills. We also operate another training program for 4 categorized systems such as basics, leadership, duties and self-development.

Training program for each ability

Basic ability		Leadership ability		Duty-related ability		Self-development ability	
Category	Training result	Category	Training result	Category	Training result	Category	Training result
Core values, ethics	1002 employees	executives	286 employees	Combination	968 employees	Degree	13 employees
Safety, quality	808 employees	Employees	114	Technology	6145 employees	Special certificates	43 employees
				Administration	1134	Language, liberal arts	All employees
Core values, ethics, safety, quality enhancement		(Executives) Leadership simulation, (Employees) Self-leadership enhancement		Training fee per person 1,620 thousand KRW, Training days per person 8.1 days		Realization of whole-rounded education applied to all duty abilities	

Ability training for 3 future growth businesses

KEPCO KPS train employees through selecting 3 future growth businesses that consist of ROMM business, demolition of nuclear power plant business, and strategic energy new business. Firstly, ROMM (thermal power plant rehabilitation) business is a comprehensive EPC (Engineering, Procurement and Construction) business and we implement training to realize a securement of technology in generation facilities' diagnosis and planning sections which can be said to be a platform of the EPC business.

We also strategically cultivate core human resources for a demolition of nuclear power plants with an engineering skill needed in various sections such as nuclear power plant, machineries, and chemistry. In order to achieve this, we conducted training of nuclear power plant salt manufacturing by deploying 5 workers overseas as well as domestically in 2016. Moreover, KEPCO KPS proceeds an expert cultivation process by selecting easily accessible renewable energy and ESS.

Future plan

KEPCO KPS attempts to establish a structured human resource cultivation system to improve professionalism of employees. We will improve internal capabilities to become a sustainable corporation though a structured training to secure the third future growth business.

Safety First Management

Strategy direction

Recently, as the industrial accidents are getting bigger and complicated, there is a growing demand for corporate responsibilities on workers' safety, and these are important factors for a sustainable development of a company. KEPCO KPS focuses on prevention methods through preventive activities, dissemination of safe culture values and a constant securement of safe infrastructures to create a healthy work place without any accident or disease. Moreover, all employees strive to make a better and safer working environment through safety training.

Main focus activities

Enhancement of a safe and health management system

Safe and health management system called KOSHA18001/OHSAS18001 is implemented to secure safety through various activities. We established a safety procedure for a settlement of safety maintenance culture and evaluate all the risks to prevent any prior to work and constantly monitor to see if the safety activities are correctly implemented.

Standard safety procedure



Morning exercise and identification of indication



Conference prior to a task

Safety disaster management brand



- KEPCO KPS is safe from industrial accidents and disasters
- KEPCO KPS values safety as the top priority
- KEPCO KPS provides top quality maintenance service

Continued establishment of safe and health infrastructure

Safe management team established a safety package system on the enterprise portal in order to form a supportive system such as safety, health and emergency activities for an effective settlement of safety activities. We provide breaking news, reports, and safety manuals and training materials (in a form of video, presentation, and document) and on the site, they utilize safety training textbooks and revised 11 standards of safe and health policies to form a safer working environment.

Operation of specialized safety procedure and program

We provide safety management policy to allow safe activities using accumulated skills from the on-site experience of the payment peak human resources. Moreover, we improved safety management efficiency by sharing safety instructions in real-time through SNS in a large-scale maintenance sites and provides safety training to entry level works to executives. We also perform accident preventive activities and policies through Tool Box Meeting, Pre Job Briefing, and safety procedures when dealing with hazardous chemicals.

Main industrial safety index

Year	Accidents over industry as a whole	KEPCO KPS accident rate
2014	0.53	0.03
2015	0.50	0.02
2016	0.49	0.01

Accident rate = casualties / All-time working employees × 100

Standard safety procedure



SNS management



Logging in using smartphones



Transmission of TBM on the site



Management of TBM



Safety drill against disaster

Safety culture dissemination activities for making a zero-accident work place

KEPCO KPS regularized safety momentum prior to meetings in 60 different work places and launched a contest to disseminate safety culture through holding a safety inspection day on 4th of every month. Moreover, we manage the industrial safety and health committee consist of 9 or less members from the labor union and for smaller work places, the labor committee takes the responsibility and holds meetings. Industrial safety and health committee actively applies all the complaints from the site in order to improve health and safety of employees. Moreover, the committee is held every quarter, and shares the results with employees by discussing the preventive measures together.

Enhancement of disaster safety management ability

We established a customized training system through an emergency training to cope with typhoon and heavy rain. In September 2016, we reacted quickly by sending messages and calling employees during the earthquake in Gyeongju province. We enhance response ability through a shared information and situation report system with related organizations such as Ministry of Trade, Industry and Energy, KEPCO, and generation companies.

Moreover, we launch a mandatory training such as cardiopulmonary resuscitation and first aid and provide training about preventive measures and reasons and also disseminate accident cases and accident analysis reports for the past 30 years.

Category	Safety training held by headquarters	Safety training preventing accidents	Categorical training in response to accidents
2014	3 times 142 graduated	3 times	7 times
2015	3 times 243 graduated	5 times	21 times
2016	5 times 291 graduated	6 times	15 times



Participation in safety Korean activity as a public institution

We participate in yellow carpet in front of schools to prevent child car accidents as a part of safety Korean activities and contribute to an improvement of civilian safe culture by launching an electricity safety training targeted toward local nursery schools.



Yellow Carpet



Agreement on Yello Carpet

Accident management guidelines

KEPCO KPS prevents emergencies such as national security, natural and climate disasters, international terrorism and power system based on the related legislations and guidelines (national emergency management system guidelines, emergency manual), and prepares for the unavoidable situations. Moreover, we establish a comprehensive emergency management plan to adequately react to accidents.

Enhancement of employees' health management

We deploy health managers to 23 main work sites in Korea for health promotion, prevention of disease, and first aid during the task and we operate other work sites with more than 50 workers by assigning health agencies. Especially we launch an improvement method and effective health policies through managing employees' health trends. Especially, we conduct special check-ups every year such as hearing inspection, liver function and hemagglutination test. Moreover we provide medical costs so that employees can receive comprehensive check-ups and conduct an inspection of cancer related to radiation every year to workers who work at nuclear power plant businesses.

For those who have diseases can consult with health managers who work at the company and check their bodies regularly with a health checkup diary. We provide a group health training to prevent bones and sinews diseases and prevent diseases by improving flexibility and mass muscles. Moreover, we contribute to daily health care for employees by conducting a detailed body checkups and give advice on customized exercise plans.



CPR training for all employees



Operation of mental and psychological consultants

Future plan

KEPCO KPS continues to launch a sustainable safety management to improve safety culture through a safety priority management. Moreover, we will do our best to establish an infrastructure so that employees can work at a safe environment through switching system between headquarters and work sites.

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APPENDIX

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Financial Information

Financial statements – All-inclusive income statement

(Unit: KRW)

Category	33 rd	32 nd
Sales	1,214,303,776,776	1,171,082,369,723
Sales cost	1,025,138,225,830	925,714,632,725
Gross profit	189,165,550,946	245,367,736,998
Selling and administrative expense	86,225,528,379	72,616,842,312
Business profit	102,940,022,567	172,750,894,686
Non-operating income	13,243,847,566	50,501,538,995
Non-operating expenses	6,394,186,671	4,559,816,337
Corporate tax revenue (cost) net income before tax	109,789,683,462	218,692,617,344
Income tax expenses	23,132,311,426	50,060,446,220
Net profit	86,657,372,036	168,632,171,124

*The 33rd term in December 31st 2016 / the 32nd term December 31st 2015

Financial statement – Statement of position

(Unit: KRW)

Category	33 rd	32 nd
Current assets	553,923,777,676	547,152,454,154
Non-current assets	532,497,161,943	482,151,790,927
Total assets	1,086,420,939,619	1,029,304,245,081
Current liabilities	264,505,520,698	195,029,759,315
Non-current liabilities	36,984,082,396	51,311,827,015
Total debts	301,489,603,094	246,341,586,330
Capital	9,000,000,000	9,000,000,000
Retained earnings	775,931,336,525	773,962,658,751
Total capital	784,931,336,525	782,962,658,751
Total debts and capital	1,086,420,939,619	1,029,304,245,081

*33rd (December 31st 2016) / 32nd (December 31st 2015)

**Financial statements – All-inclusive income statement**

(Unit: KRW)

Category	33 rd	32 nd
Sales	1,223,106,398,233	1,179,714,929,885
Sales cost	1,030,418,509,534	931,046,594,090
Gross profit	192,687,888,699	248,668,335,795
Selling and administrative expense	86,926,262,992	73,491,550,213
Business profit	105,761,625,707	175,176,785,582
Non-operating income	13,637,183,802	50,778,932,014
Non-operating expenses	6,581,861,923	4,730,422,116
Corporate tax revenue (cost) net income before tax	112,865,811,606	221,273,990,245
Income tax expenses	24,583,235,104	51,338,742,684
Net profit	88,282,576,502	169,935,247,561

*The 33rd term in December 31st 2016 / the 32nd term December 31st 2015**Financial statement – Statement of position**

(Unit: KRW)

Category	33 rd	32 nd
Current assets	561,598,431,835	552,555,363,261
Non-current assets	530,870,293,602	481,003,780,311
Total assets	1,092,468,725,437	1,033,559,143,572
Current liabilities	265,650,755,312	195,984,082,027
Non-current liabilities	37,051,682,490	51,311,827,015
Total debts	302,702,437,802	247,295,909,042
Capital	9,000,000,000	9,000,000,000
Retained earnings	780,815,611,884	777,229,310,280
Total capital	789,766,287,635	786,263,234,530
Total debts and capital	1,092,468,725,437	1,033,559,143,572

*33rd (December 31st 2016) / 32nd (December 31st 2015)

Quantitative Performance of Social and Environmental Data

Employee's status

Category			Unit	2014	2015	2016
Total employees (regular workers)			Person	4,948	5,334	5,499
By regions (regular workers)	Domestic		Person	4,830	5,179	5,301
	Overseas*		Person	114	155	198
By gender (regular workers)	Male		Person	4,793	5,128	5,288
	Female		Person	155	206	211
	Female ratio		%	3.10%	3.90%	3.80%
By age (regular workers)	Younger than forties		Person	1,631	2,036	2,051
	Forties		Person	1,841	1,715	1,667
	Older than fifties		Person	1,476	1,583	1,781
By position (regular workers)	Executive staff	Total	Person	5	5	5
		Male	Person	5	5	5
		Female	Person	-	-	0
	Rank 1	Total	Person	97	97	99
		Male	Person	97	97	99
		Female	Person	-	-	0
	Rank 2	Total	Person	239	245	240
		Male	Person	239	245	240
		Female	Person	-	-	0
	Rank 3	Total	Person	538	569	552
		Male	Person	524	556	536
		Female	Person	14	13	16
	Rank 4	Total	Person	3,780	4,145	4,053
		Male	Person	3,663	3,976	3,883
		Female	Person	117	169	170
	Position in Professional service	Total	Person	118	115	189
		Male	Person	118	115	187
		Female	Person	-	-	2
	Position in special services	Total	Person	171	158	298
		Male	Person	147	134	75
		Female	Person	24	24	23
	Salary peak Separate quota	Total	Person	-	-	63
		Male	Person	-	-	63
		Female	Person	-	-	0
Employment status	Regular workers	Total	Person	4,948	5,334	5,494
		Male	Person	4,793	5,128	5,283
		Female	Person	155	206	211
	Non-regular workers	Total	Person	438	519	567
		Male	Person	370	452	497
		Female	Person	68	67	70
	Unlimited Contract	Total	Person	3	5	9
		Male	Person	1	2	5
		Female	Person	2	3	4
Hiring rate and turnover rate of new employees	New hire	Total	Person	275	557	210
		Male	Person	254	496	199
		Female	Person	21	61	11
	Turnover rate (Resignation rate)**		Person	85	52	42
			%	1.72	0.82	0.87

*Excluding foreign workers and dispatched workers at overseas corporation

**Voluntary resigned employees (voluntary resignation, dismissal at ones' own request) / total number of employees

**Defined Benefit (DB) Retirement Pension**

Category	Unit	2014	2015	2016
Externally accumulated assets	100 million KRW	1,897	2,273	2,788

Usage status of maternity protection system

Category	Unit	2014	2015	2016
Maternity leave	Person	12	21	14
Maternity leave	Person	10	18	21
Return rate after maternity leave *	%	87.5	88.9	100.0

*Employees who continue to work 6 months or more after the maternity leave in that year (Family friendly system certificate standard)

Supplier cost

Category	Unit	2014	2015	2016
Purchase of products from small enterprises	100 million KRW	3,161	2,975	3,179

Response to climate change

Category	Unit	2014	2015	2016
Energy consumption	TJ	63,998	86,101	99,128
Energy degree of intensity	TJ / 100million KRW	0.01	0.01	0.01
Greenhouse gas emission amount	tCO ₂	3,914.31	5,264.34	5,994.82
Degree of intensity of greenhouse gas emission	tCO ₂ / 100 million KRW	0.36	0.45	0.49

*Degree of intensity is computed based on sales (continuous)

Assurance Statement

Introduction

KEPCO KPS commissioned DNV GL Business Assurance Korea Ltd. ("DNV GL"), part of DNV GL Group, to undertake independent assurance of 2015-2016 Sustainability Report (the "Report"). DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith.

Scope of assurance

The scope of assurance included a review of sustainability activities and performance data over the reporting period from 1st January 2015 to 31st December 2016. This included:

- Review of disclosures to check the Report is prepared 'In accordance' with the GRI Guidelines G4(Comprehensive option)
- Evaluation of the Report on the adherence to AccountAbility principles provided in AA1000 AccountAbility Principles Standard (APS) 2008.
- Evaluation of the process for determining material aspects for reporting and the management approach to material issues
- 2015-2016 performance data and information described in the Report against the information disclosure system for state-owned company or publicly-owned corporation, the management evaluation report for state-owned company or publicly-owned corporation, and internal documents and records

Basis of our opinion

We performed our work as per AA1000AS (2008) and we provide Type 1 and a moderate level of assurance as stated in AA1000AS. The audit was carried out in April through June 2017 and the site visits were made to the Headquarters of KEPCO KPS in Naju, Korea. We undertook the following activities as part of the assurance process:

- Challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls;
- Interviewed representatives from the various departments;
- Conducted document reviews, data sampling and interrogation of supporting databases and associated reporting system and associated reporting systems as they relate to selected content and performance data;
- Reviewed the materiality assessment report.

Limitations

The engagement excludes the sustainability management, performance and reporting practices of KEPCO KPS' associated companies, subsidiaries, suppliers, contractors and any third-parties mentioned in the Report. DNV GL did not interview external stakeholders as part of this Assurance Engagement. Financial statements of KEPCO KPS, data announced on DART system of the Financial Supervisory Service (DART; dart.fss.or.kr/) and the information disclosure system for state-owned company or publicly-owned corporation (ALIO; www.alio.go.kr), and data on its websites (www.kps.co.kr) are not included in the scope of assurance. Data assurance was conducted by checking the basis in a limited scope, including inquiry, analysis, and limited sampling method, on the data collected by KEPCO KPS. The aggregation and calculation process for building economic performances is reviewed by the verification team. Also, environmental and social data were verified using the aggregated data. The directors of KEPCO KPS have sole responsibility for the preparation of the Report. The responsibility of DNV GL in performing the assurance work is to the management of KEPCO KPS in accordance with the terms of reference. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Conclusion

On the basis of the work undertaken, nothing comes to our attention to suggest that the Report does not properly describe the adherence to the Principles in AA1000APS (2008) nor is prepared 'in accordance' with GRI G4 Comprehensive option. Further opinions with regards to the adherence to the following Principles in the AA1000APS (2008) are made below;



The Foundation Principle of Inclusivity

KEPCO KPS has identified internal and external stakeholder groups such as Employees and Trade Union, Government Congress the Public Associations, Shareholders and Investors, Customers, Suppliers and Local Communities. KEPCO KPS engages with the stakeholders at the company and business unit levels through various channels. The examples of approaches to engagement with selected stakeholders, material issues and response of KEPCO KPS are described in the Report.

The Principle of Materiality

KEPCO KPS has conducted materiality assessment to prepare the Report. Various issues have been derived by analysing the topics covered in various global initiatives and standards, major stakeholder expectations, industry peers' reports and media reports and internal and external stakeholder survey result. Subsequently the issues are prioritized by taking into account the social concern and business impact on KEPCO KPS. In addition, KEPCO KPS has grouped 11 material issues into 9 aspects as defined in GRI G4 and presented its management approaches on the respective aspects in the Report. The verification team has reviewed the materiality assessment process and nothing comes to our attention that would cause us to believe that material issues identified from the assessment are not reported.

The Principle of Responsiveness

The communication process with stakeholders is established and appropriate responses to stakeholders' views, concerns and expectations are reflected in the report. KEPCO KPS integrates sustainability management strategies in terms of economic, environmental and social aspects with which stakeholders are concerned into the mid- to long-term business strategies. Relevant committee is formed to review the sustainability strategy.

Report quality: Accuracy and Reliability

We found a limited number of non-material errors and these were corrected prior to inclusion in the Report. The data presented in the report were gathered from the teams responsible for data control in KEPCO KPS. The verification team interviewed the Person-in-charge, reviewed the process of gathering and processing data and information, and the supporting documents and records. The depth of data verification is limited to the aggregated data. Based on sampling verification and other reported information and available evidence, nothing comes to our attention that would cause us to believe that the data and information presented in the Report have any intentional error or material misstatement.

Competence and Independence

DNV GL Business Assurance is part of DNV GL Group and a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. Our environmental and social assurance specialists are present in over 100 countries. The assurance work was performed by independent team which meets DNV GL's competence requirements. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. The verification team has complied with DNV GL's Code of Conduct.

28 June 2017
Seoul, Korea

In Kyooh Ahn Country Representative
DNV GL Business Assurance Korea Ltd.

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G4-EN16	Energy Indirect Greenhouse Gas (GHG) Emissions (Scope 2)	64
G4-EN17	Other Indirect Greenhouse Gas (GHG) Emissions (Scope 3)	Do not manage this data
G4-EN18	Greenhouse Gas (GHG) Emissions Intensity	78
G4-EN19	Reduction of Greenhouse Gas (GHG) Emissions	64
G4-EN20	Emissions of Ozone-Depleting Substances (ODS)	Do not use ozone-depleting substances
G4-EN21	NOx, SOx, and other Significant Air Emissions	63
Effluents and Waste		
G4-EN23	Total Weight of Waste by Type and Disposal Method	62



Social

G4	Disclosure	Page
Labor Practices and Decent Work		
Employment		
DMA		66-67
G4-LA1	Total Number and Rates of New Employees Hires and Employee Turnover by Age Group, Gender and Region	78
G4-LA2	Benefits Provided to Full-time Employees that are not Provided to Temporary of Part-time Employees, by Significant Locations of Operation	KEPCO KPS Homepage→Management Disclosure→Employee Benefits
G4-LA3	Return to Work and Retention Rates after Parental Leave, by Gender	78
Occupational Health and Safety		
DMA		66-67
G4-LA5	Percentage of Total Workforce Represented in Formal Joint Management	73
G4-LA6	Type of Injury and Rates of Injury and Rates of Injury, Occupational Diseases, Lost Days, and Absenteeism, and Total Number of Work-related Fatalities, by Region and by Gender	72
G4-LA7	Workers with High Incidence or High Risk of Diseases related to their Occupation	74
G4-LA8	Health and safety Topics covered in Formal Agreements with Trade Unions	73
Training and Education		
DMA		67-68
G4-LA9	Average Hours of Training per year per Employee by Gender, and by Employee Category	72
G4-LA10	Programs for Skills Management and Lifelong Learning that Support the Continued Employability of Employees and Assist them in Managing Career Endings	71
G4-LA11	Percentage of Employees Receiving Regular Performance and Career Development Reviews, by Gender and by Employee Category	69
Diversity and Equal Opportunity		
G4-LA12	Composition of Governance Bodies and Breakdown of Employees per Employee Category according to Gender, Age group, Minority group membership and other Indicators of Diversity	68
Society		
Local Communities		
DMA		50-51
G4-SO1	Percentage of Operations with Implemented Local Community Engagement, Impact Assessments, and Development Programs	52-55
G4-SO2	Operations with Significant Actual and Potential Negative Impacts on Local Communities	52-55
Anti-Corruption		
G4-SO3	Total Number and Percentage of Operations Assessed for Risks Related to Corruption and the Significant Risks Identified	24-25
G4-SO4	Communication and Training on Anti-Corruption Policies and Procedures	24-25
G4-SO5	Confirmed Incidents of Corruption and Actions taken	24-25
Grievance Mechanisms for Impacts on Society		
G4-SO11	Percentage of New Suppliers that were screened using Criteria for Impacts on Society	59
Product and Service Labeling		
DMA		38
G4-PR3	Type of Product and Service Information required by the Organization's Procedures for Product and Service Information and Labeling, and Percentage of Significant Product and Service Categories Subject to such Information Requirements	38
G4-PR5	Results of Surveys Measuring Customer Satisfaction	41

UN Global Compact and Sustainable Development Goal Implementation



UNGC

KEPCO KPS abide by the 10 principles in 4 sections such as human rights, labor, environment, and anti-corruption by joining the UN global compact which is an international agreement to take the social responsibilities as a corporation. Every year, we report about communication on process (COP) and will continue to abide by the UN global compact principles.

Category	Principles	Related pages
Human rights	1. We respect and support human rights protection stated internationally	4, 6, 22
	2. We strive not to be involved in human right violations	
Labor	3. We believe in association, freedom and collective bargaining rights	4, 21~22, 31
	4. We exclude all forms of forced labor	4, 22
	5. We abolish child labor effectively	
	6. We abolish discrimination in hiring and tasks	4, 22, 27, 63
Environment	7. We support preventive approach to environmental issues	6, 71~76
	8. We carry out a method to take full responsibility of the environment	
	9. We promote an expansion and development of environment friendly technologies Anti-corruption	
Anti-corruption	10. We deny all forms of corruption including briberies	21, 25~26



UN Sustainable Development Goals

SDGs are composed of 17 goals and 169 sub tasks to resolve issues through a cooperation of international societies from 2016 to 2030. It asks for cooperation among government, corporations, and organizations to resolve social issues such as technology, living, hiring and consumption and environmental issues such as climate change, water and universal issues such as poor, disease, education, women and children. KEPCO KPS discovers diverse tasks to achieve sustainable development goals to contribute to corporate economic value creation along with the development of international societies.

SDGs	KEPCO KPS contribution	Related page
1. Elimination of hunger	<ul style="list-style-type: none"> • Making kimchi, delivery of lunch box, meal service and community social contribution activities • Support of necessities and products to seniors who live alone and low-income families 	55~56
3. Health and well-being improvement	<ul style="list-style-type: none"> • Delivery of briquettes, give blood campaign, walking marathon to prevent dementia, fund support activities 	55~56
5. Achievement of gender equality and improvement of women roles	<ul style="list-style-type: none"> • Expansion of product purchases by female-owned companies • Hiring process without sexual discrimination 	59, 63
7. Energy approach guarantee	<ul style="list-style-type: none"> • Stabilization of electricity supply for the poor 	54
8. Development of economic growth, increase in job creations	<ul style="list-style-type: none"> • Expansion of job creation • Selecting talented individuals based on tasks and open-minded hiring process 	38
13. React to the climate change	<ul style="list-style-type: none"> • Expansion of renewable energy businesses 	76
15. Preservation of the land ecosystem	<ul style="list-style-type: none"> • Implementation of environmental cleansing activities by signing a contract to keep the mountain Baemae 	55





Major Awards and Associate Members

Awards

Date	Content	Organization
2015. 08	'2015 Korean best management prize' grand prize in the labor management section	MK Maekyung
2015. 08	Received the grand prize for Asia quality management	Korea · China quality consortium
2015. 12	Received 'excellent' grade for public institution integrity	Anti-corruption and Civil Rights Commission
2016. 01	Selection of individuals who contributed to the development of Korean economy	MK Maekyung
2016. 02	Received the grand prize among Korean ethical management public institutions	Korean ethical management administration
2016. 07	Received the grand prize for Korean CEO in 2016	Fortune Korea
2016. 09	Selected as the 1 st prize in generating facility and maintenance service for 5 consecutive years for KS-QEI	Korean Standards Association
2016. 10	Selected as the excellent corporation by DJSI Korea for commercial service and distribution section	The Korean Productivity Center
2016. 10	Won financial structure grand prize for 3 consecutive years	A new management academy
2016. 11	Selected as an excellent company for quality competitiveness for 18 years	Ministry of Trade, Energy and Industry
2016. 12	Received 1 st grade for public institution integrity	Anti-corruption and civil rights commission
2016. 12	Won the grand prize for 'good-to-work company in Korea 2016'	GPTW Institute

Associate Members

Year	Society/Association name	Purpose
1984	Korea Electric Association	An institution to manage and research standard technology about new electricity technology inspection
1984	Korea Atomic Power Industry	Increased partnership with related institutions by getting information about nuclear power plants
1996	Korea Combined Heat and Power Plant Committee	expansion of new business through information trade
2004	Korea District Heating and Cooling Committee	Contributes to policy realization of group energy industry and environment preservation with energy saving
2005	Korea renewable energy committee	information trade about needs and trend of information market
2006	Yoonkyung SM Forum	Settlement of corporate culture and dissemination of ethical management through best practice
2008	Korea Generation Maintenance Committee	Research methods to increase competitiveness
2011	Korea Nuclear Plant Export Industry Committee	Information trade and partnership in nuclear power plant industry and analysis of foreign plants and exports
2012	Korea Atomic Energy Resource Committee	Participation of training and information trade about new technology
2013	Korea Engineering Asset Management Association	Contributes to government policies through cooperation for adequate dissemination of development of technology and knowledge
2015	Korea Temporary Equipment Association	Contributes to the development of the temporary industries by securing economics and stabilities
2015	KRETA	Contributes to electric train development through regular inspection and diagnosis
2015	Public Institutions Audit Forum	Share government policies and achieve economic goals
2016	Korea Smart Grid Association	Discovery of smart grid businesses
2016	Korea SCM Committee	Consult foreign projects SCM establishment, information trade
2016	Korean National Quality Award	Information trade and bench marking about quality management activities
2016	Jeonnam Entrepreneur Committee	Contributes to local communities and activation of task among Jeonnam organizations

Glossary

• BAU (Business as Usual)	Total amount of expected greenhouse gas emission if no artificial measures are taken to reduce greenhouse gas emission
• BEMS (Building Energy Management System)	Management system for building energy
• BOT (Build Operate Transfer)	A type of project financing that transfers ownership to the government after managing for a certain period of time after a completion of social infrastructures by civilian corporations who paid for the construction
• EIS (Executive Information System)	A system that manages all information needed to inspect each department's activities and total business and help CEO or executive employees to make a strategical and competitive decision
• EPC (Engineering, Procurement, Construction)	A type of turnkey methods that covers from purchase of engineering resources to construction by a contractor
• ERP (Enterprise Resource Planning)	A system that helps the production of new information and quick decision making process while shares every information produced by companies and operates by comprehensively linking management activity processes such as internal production, trade, finance, accounting, sales and purchase and stock
• ERM (Enterprise Risk Management)	New risk management method to minimize company's loss through an integrated management of concrete and intangible management risks
• ESCO (Energy Service Company)	Business that retrieves investment cost by investing in energy saving facilities then retrieving energy saved cost instead of an individual or a corporation
• ESS (Energy Storage System)	Saving device that supplies electricity temporarily when there is a lack of electricity by saving the extra electricity generated at the power plant
• FEMS (Factory Energy Management System)	Management system for factory energy
• GT (Gas Turbine)	Gas turbine
• HVDC (High-Voltage Direct Current)	A method to send electricity to main customers by converting the generated AC from the power plant to DC and transporting to the places in demand then converting back to AC
• MOA (Memorandum of Agree)	A document that contains a mutual agreement by concerned parties on basic terms and conditions of business that generally applies to everywhere
• MOV (Motor Operated Valve)	Valve that manages opening and shutting by a motor
• MSDS (Material, Safety Data Sheet)	A document that writes chemical substances, nomenclature of medicines with chemical substances, physical chemistry characteristics, toxicity/riskiness, manual in case of fire/explosion and effects on environments
• NCS (National Competency Standards)	National Competency Standard
• O&M (Operation & Maintenance)	Operating and Maintenance
• PJB (Pre-Job-Briefing)	Conference before tasks
• PMP (Project Management Professional)	International certificate that manages information structure centered projects that summarizes approach methods needed for project management
• QIRAS (Quality Inspector Realtime Assistant System)	Real-time support system by quality examiners
• Retrofit	An act of applying software or parts that are newly designed on products that are in service or accepted for delivery
• ROMM (Rehabilitation, Operation, Maintenance & Management)	Recovering business of thermal power plant performance
• SAT (Systematic Approach to Training)	Management method for structured training of an international condition of eligibility
• TBM (Tool Box Meeting)	Employees discussing on scheduled duties, procedures, safety, and attention points before the job



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