

SMART ENERGY CREATOR



ABOUT THIS REPORT

Reporting Standards

The Sustainability Report for 2016 (the Report) is based on the G4 Guidelines of GRI (Global Reporting Initiative), ISO 26000, and the UN Global Compact. The reporting standards and definitions of financial data are in accordance with the IFRS (International Financial Reporting Standards).

Reporting Period

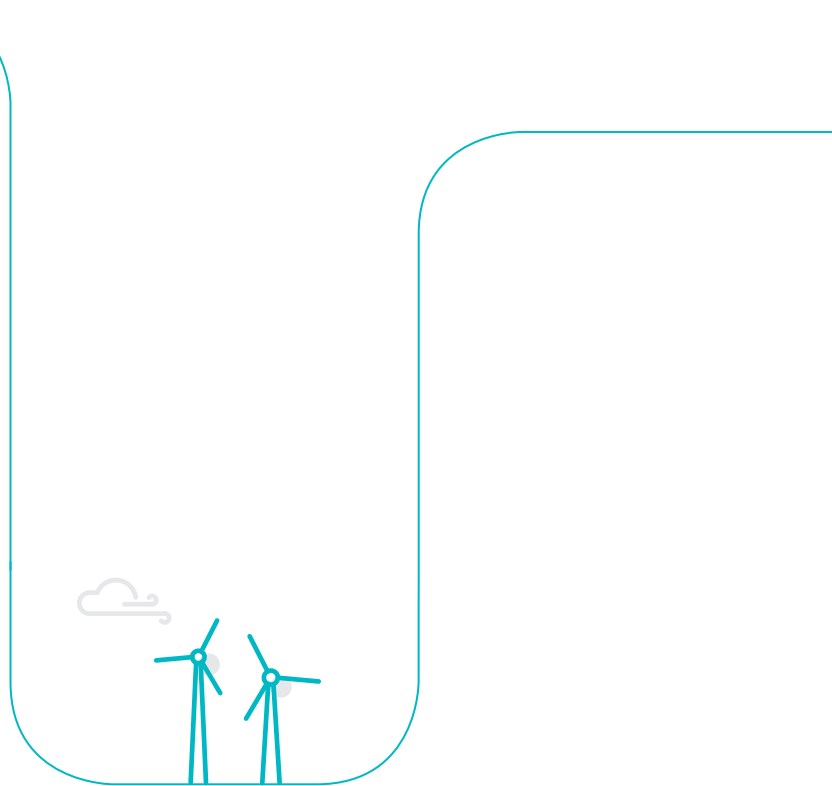
This report contains quantitative performance data from January 1st to December 31st, 2015, and also includes various activities and achievements of great importance that were performed in the first half of 2016. There were no significant changes in the reporting period for the Sustainability Report for 2016.

Reporting Scope

This report targets KEPCO's performance for sustainable management. In regard to eco-friendliness in the supply chain (expenses for environmental investment, pollutants in air quality and water quality), and data on six GENCOs whose shares are 100% owned by KEPCO (Korea Hydro & Nuclear Power, Korea South-East Power, Korea Midland Power, Korea Western Power, Korea Southern Power, and Korea East-West Power) was reported.

Report Verification

Disclosed information was included after verification of the facts that were prepared by relevant departments. To secure credibility in the reporting content, the report was verified by the Korea Productivity Center, which is an independent assessment institution. Assessment standards are included in the assessment report.



Interactive Guide

The 2016 Sustainability Report was produced in the Interactive PDF, guiding readers to a relevant page they wish to read.



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SMART ENERGY CREATOR

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CEO Message



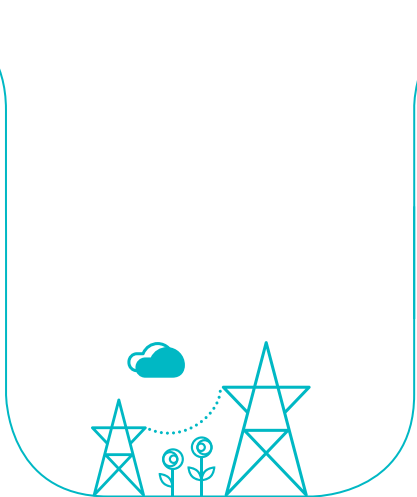
“
**KEPCO aims to create
Beyond the Top,
Leading KEPCO through
business transformation**
”

Dear esteemed stakeholders,
I sincerely appreciate all our stakeholders' continual support for KEPCO.

KEPCO strives to create a sustainable energy future for everyone by leading the new energy industry that responds to the new climate change regime while fulfilling our mission to stably supply the best quality electricity and improve the quality of our customer's lives by continuing to implement the finest electricity business that has been in operation for the last 118 years.

“KEPCO has become the No.1 Global Electric Utility.”

KEPCO was listed as the world’s No.1 Electric Utility in the Forbes Global 2000 published in May, 2016 for the first time in its history. Moreover, its stock price has experienced a steady rise since the renewal of the highest price in July 2015 and we received the highest credit rating among global electric utilities by the world’s three credit rating agencies, Moody’s, S&P and Fitch. This is incredibly important as the world not only recognises our stable electricity supply and our efficient management performances, but also the sustainable future value of KEPCO.



“KEPCO is establishing a new future with clean energy.”

The new energy industry has recently drawn more attention than ever, and a new market, technology and industry have been being created with the acceleration of convergence between technology and industry. The waves of such change and innovation require a conversion to a more clean and efficient future energy. KEPCO is building an eco-friendly electricity environment by taking the lead in the technological development and commercialization of new energy businesses such as the establishment of the ESS (Energy Storage System) for matching the world’s largest frequency, 236MW; the fostering of eco-friendly energy-independent islands including Ulleungdo; and the expansion of the charging infrastructure for electric vehicles to 3,660 chargers by 2018. Moreover, KEPCO conducts 37 projects in 22 countries such as the Middle East, North, Central America and Africa, which presently includes the UAE Nuclear Power Plant, and is diversifying business models not only in the traditional areas of thermal and nuclear power but also in renewable energy and new energy business exports. We aim to build a global KEPCO belt that connects all continents in the mid-to-long-term through these achievements.

“KEPCO is creating an Energy World where values are shared by everyone.”

Since the KEPCO HQ changed its location to Naju in December, 2014, KEPCO has been successfully carrying out the “Bitgaram Energy Valley” project to turn the Gwangju Jeonnam Region into a hub for the electric power energy industry. With an aim to attract 500 energy-related companies by 2020, agreements for investment in the Energy Valley have been concluded with 133 companies, as of June 2016, and we are building “Bitgaram Energy Valley” into a coexistence role model that shares values with local communities, for example, the expansion of localized R&D investment through industry-university-research collaboration. Through operating an export guarantee system for SMEs, KEPCO runs various programs for mutual growth with SMEs including helping to locate an overseas market, enhancing joint R&D and boosting technology capabilities. In addition, the world’s first international exposition for new electric power technology, ‘BIXPO 2015,’ was successfully held last year attracting about 30,000 visitors and ‘BIXPO 2016’ is scheduled for this November.

With the new slogan of ‘Beyond the Top, Leading KEPCO’, KEPCO aims to be a future-oriented leader in the new energy environment beyond the world’s No.1 electric utility. KEPCO will implement sustainable development by leading the global energy market with a leap in innovation beyond ourselves.

I appreciate your continual support for KEPCO as we work together for a better, eco-friendlier tomorrow.
Thank you.

KEPCO CEO & President Cho Hwan-Eik

KEPCO Highlights

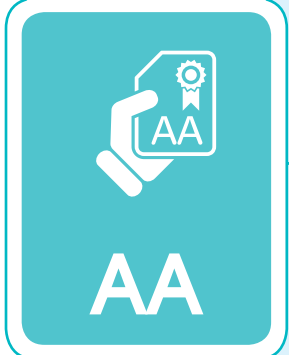
No.1 Electric Utility & Global 100 Companies of Forbes Global 2000

Asia's first electric power company and Korea's first public enterprise listed as the world's No.1 Electric Power corporation in Forbes Global 2000 published in May 2016.



Rated AA by Three Credit Rating Agencies (Highest Credit Rate among Global Electric Utilities)

Thanks to KEPCO's highly intensive efforts to improve financial soundness and enterprise value which includes a market capital increase of KRW 4.7 trillion, KEPCO received the highest rating of Aa2, AA- and AA- among global electric powers from the world's three major credit rating companies, Moody's, S&P and Fitch, respectively.



No. 1 in the Electricity Supply Sector of World Bank's Business Environment Survey for Two Consecutive Years

KEPCO has reached the top for two years in a row in the world electricity supply sector of the Business Environment Survey by the World Bank with its high quality electricity supply at the world's highest level such as 10.26 minutes of SAID and 3.60% of T&D loss rate.



World's First Electric Power Technology Exposition, BIXPO 2015

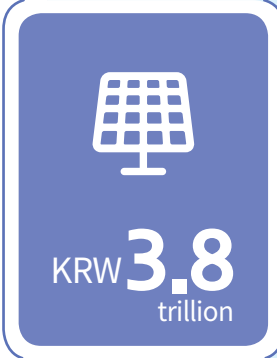
Bitgaram International Exposition of the Electric Power Technology (BIXPO) was held for the first time in the world in October 2015 and offered a place for exchanging new technologies in electric power for about 30,000 visitors including 600 experts from 40 countries.





Investment of KRW 3.8 trillion in New Energy Businesses

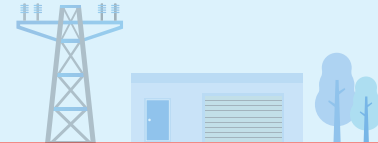
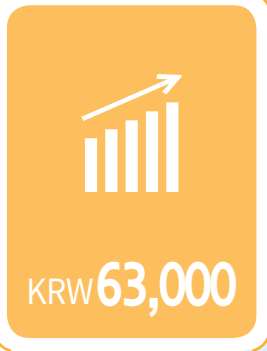
For the new energy business sector in 2016, plans have been made to invest KRW 3.8 trillion, which is an increase of KRW 2.9 trillion compared to the performance of the previous year, in response to the new market environment such as the acceleration of technology-industry convergence and the new climate change regime, and the vitalization of the new energy industry.



Record-High Stock Price of KRW 63,000

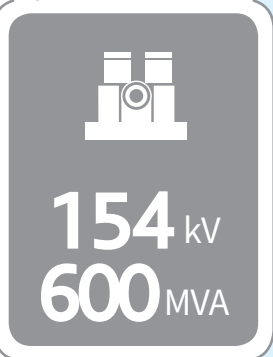
(based on the closing price of May 30th, 2016)

In recognition of KEPCO's record-high financial performance through the improvement of the financial structure, KEPCO's stock price recorded the new highest price of KRW 63,000 in May 2016 with a continuous increase after the highest price in July 2015 since its listing on the stock market.



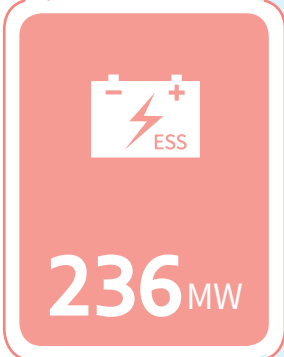
Field Test of World's Largest Transfer Capacity of 154kV 600MVA SC (superconductivity) Cable

In March 2016, the field test of the world's largest transfer capacity of the SC cable system connected to a power system was initiated in Hallim-eup, Jeju, and it is scheduled to be carried out for seven months by connecting 1km to the real power system between Geumag power conversion station and Hallim substation.



Established the World's Largest ESS of 236 MW for Frequency Regulation

KEPCO now possesses and operates a total of 236MW ESS for frequency regulation by establishing an additional 184MW including 48MW of Gyeongsan substation to the world's largest ESS of 52MW for frequency regulation in 2014.



KEPCO Profile

Current Status

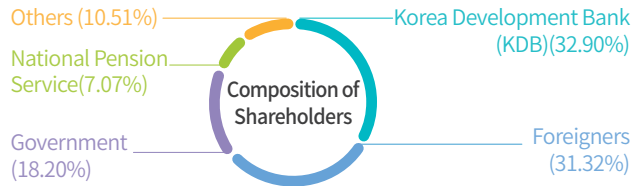
- Company Name Korea Electric Power Corporation (KEPCO)
- Established on January 26th, 1898
- Listed on Korea Exchange (1989, KRX), New York Stock Exchange (1994, NYSE)

Total Assets **KRW 175 trillion**
(based on consolidated financial statement)

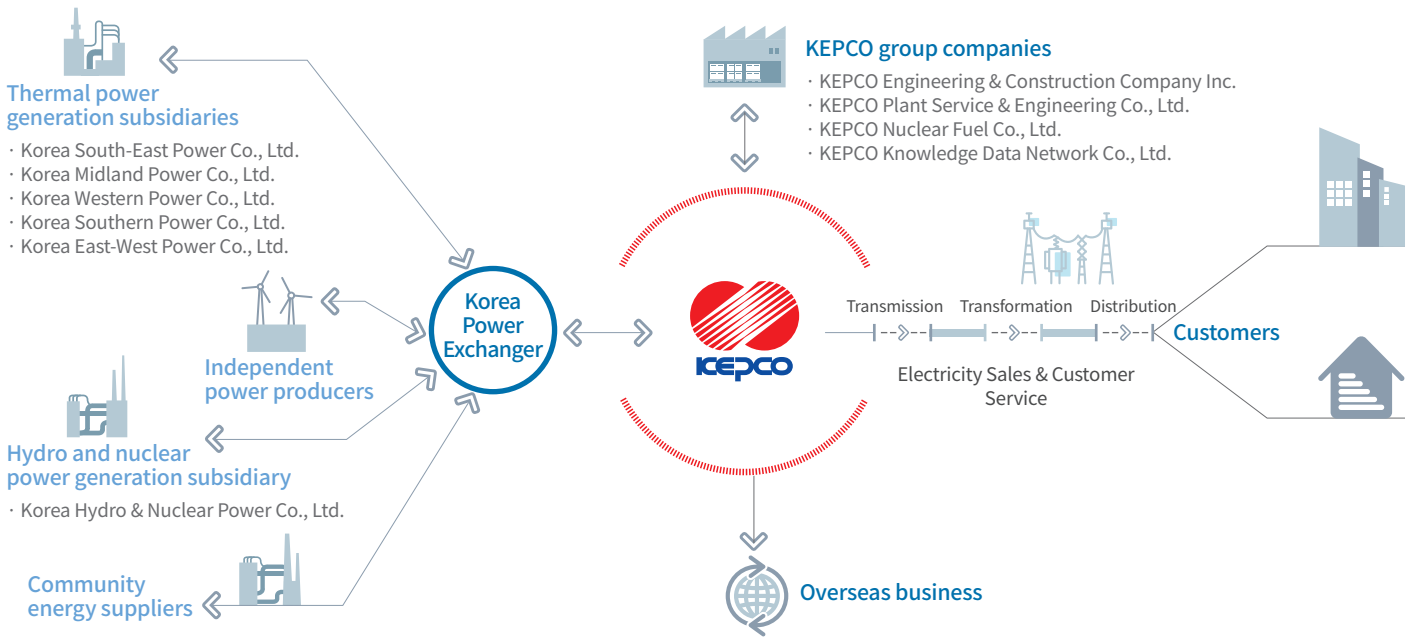
Sales **KRW 59 trillion**
(based on consolidated financial statement)

Number of Employees **20,196**

Amount of Electricity Sales **483,655 GWh**



Structure of Korean Power Industry



History

1897~1989

- 1897 Lit the first electric lamp in Korea (Geoncheongung in Gyeongbokgung)
- 1898 Founded the Hansung Electric Company
- 1944 Completed the Supung Hydroelectric Power Plant
- 1961 Korea Electric Company was established (after the integration of the Chosun Electricity Control Decree, Gyeongsung Electric Company and Namsun Electric Company)
- 1978 Completed the nation's first Kori Nuclear Unit
- 1982 Renamed the Korea Electric Power Corporation
- 1989 Listed on the Korea Exchange (Offering for government-issued stock)



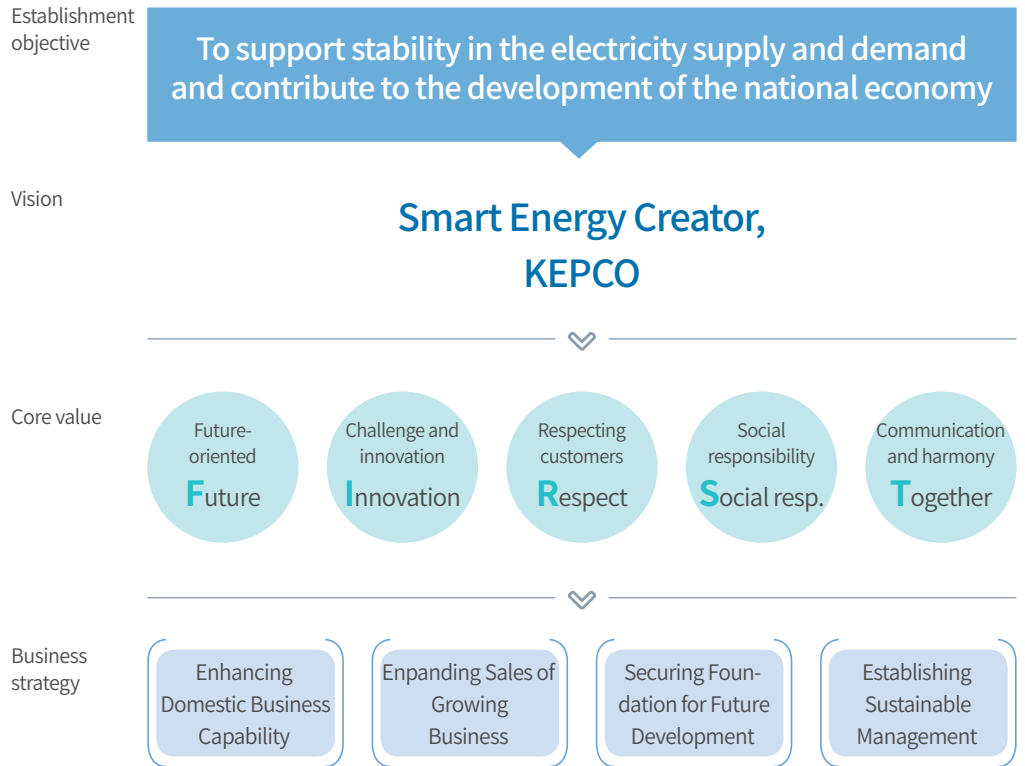
1994~2004

- 1994 Listed on the New York Exchange
- 1995 Won its first overseas generation project (Malaya Thermal Power Plant in the Philippines)
- 1997 Completed the Jeju-Haenam submarine transmission line (101km)
- 1998 Celebrated the company's 100th anniversary, Completed Ulchin Units 3, the first Korean Standard Nuclear Power Plant
- 2001 Spun off six generation subsidiaries for the generation sector
- 2002 Commercial operation of the 765kV transmission lines for the first time in Asia
- 2004 Created KEPCO Social Service Team



Value System

As we have started a new era in Bitgaram since moving to our headquarters in December 2014, KEPCO has set a new vision to become a 'Smart Energy Creator, KEPCO' with customers, management, all employees, and external experts to present a blueprint for the next century. In the future, KEPCO will create a better tomorrow as a company creating Smart Energy, not just simple electricity for customers.



2005~2012

- 2005 Completed voltage upgrade to 220V for distribution
Started power supply to the Kaeseong Industrial Complex
Published the first Sustainability Report
Joined the UN Global Compact for the first time among Korean companies
- 2006 Won the Edison Award
- 2009 Won its first nuclear power plant project(UAE)
- 2010 Established KEPCO 119 Disaster Rescue Squad
Began support for social enterprises
- 2012 Completed Jeju Smart Grid Pilot Project



2013~2016

- 2013 Held the Daegu WEC (World Energy Congress)
- 2014 Moved the headquarters building (Gwangju/Jeonnam Bitgaram Innovation City)
- 2015 Installed the UAE Unit 1 nuclear reactor
- 2016 Held 'BIXPO 2015,' the worlds first international exposition of electric power technology
Ranked No. 1 in Electric Power & Listed on Global 100 Companies in Forbes Global 2000






2016 「Forbes Global 2000」

World's No.1 Electric Utility & Global 100 Companies

KEPCO was listed as the top electric utility in the world and part of the global 100 companies in Forbes Global 2000 published in May, 2016. This is the first time we have achieved the world's No. 1 among Asian electric utilities and to be listed on Global 100 among Korea's public companies by business type, confirms the status of KEPCO as the representative state-owned company.

KEPCO is the only electric power company listed on the Global 100 Companies throughout the world in 2016 and Samsung Electronics and KEPCO are the only Korean companies that entered the top 100.

Triple  st

 First Time in KEPCO History Global 100 Companies, No. 1 Electric Power	 First Asian Electric Utility Ranked as the NO.1 Global Electric Power	 First Public Enterprise in Korea Selected in Global 100 Companies
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The released ranking served as the momentum for KEPCO to be recognized as the world's best electric utility. It is a valuable outcome, thanks to the continual support of customers at home and abroad and the trust of all our stakeholders including business partners. We will build on our status as an "integrated operator of the energy environment" by leading the new energy market beyond the best in the world. KEPCO will take the lead in creating a clean and energy efficient world of which everyone dreams.

※ 'Forbes Global 2000' is an annual ranking list of global companies, assessing four items of sales, assets, revenue, and market values, published by an American business magazine, Forbes, every May.

Rise in Innovation for a Sustainable Future

KEPCO will explore the future and accomplish innovation for sustainable growth. Our ceaseless endeavors with smart energy technologies will create future values and position KEPCO as a pioneer in the global energy industry.



Sustainable Management

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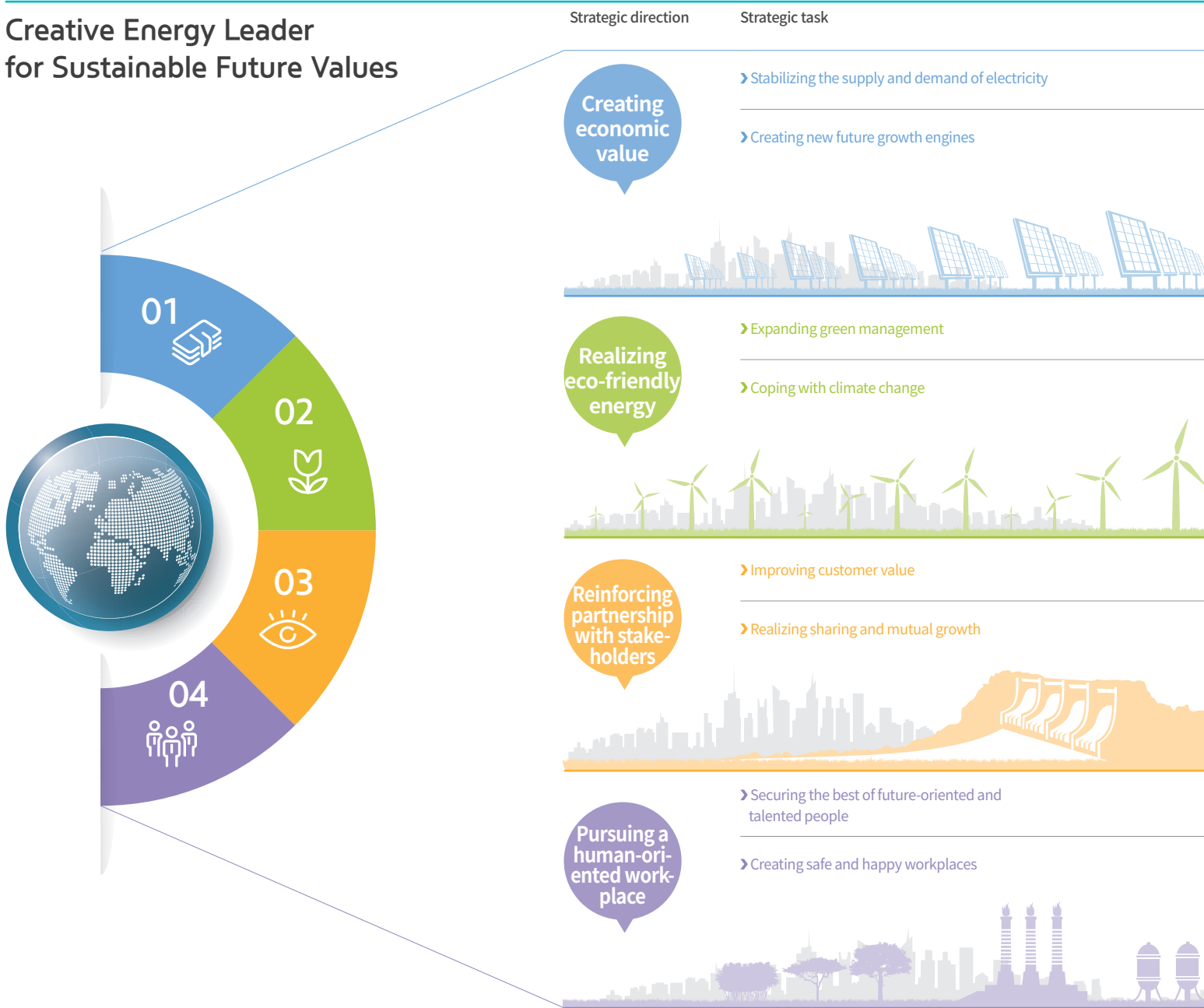
Strategies for Sustainable Management



KEPCO set four major strategic directions and eight tasks under the sustainable management vision of ‘Creative Energy Leader for Sustainable Future Values’. The company has developed a sustainable management system by drawing core issues for each task to analyze the crises and opportunities and present core performances and short and long-term goals. After considering the level of urgency, importance, and influence for each sustainable management strategic task, we will draft a mid-to-long-term plan for sustainable management to realize sustainable value with our customers, local communities and executives and employees.

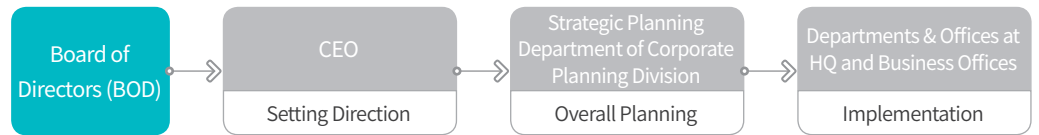
Mid and Long-term Goals for Sustainable Management

Creative Energy Leader for Sustainable Future Values



Organization for Implementing Sustainable Management

Since 2005, KEPCO has operated an organization for the Corporate Sustainability Management (CSM) to perform sustainable management in a systematic manner and the Strategic Planning Department of Corporate Planning Division manages overall tasks related to sustainable management.



Performance index	Goal for 2015	Performance for 2015	Achievement Rate (%)	Goal for 2016	Mid & Long-Term Goal (2020)	
Load rate (%)	75.8	76.5	101	75.9	Over 76.1	KRW 4.9 trillion Overseas sales
Amount of peak reduction (10,000 kW)	70	Not Implemented ¹⁾	-	100	100 ²⁾	43 cases Securing core strategic technology
Overseas sales (in trillions of KRW)	4.8	4.9	102	4.7	20 (2025)	2,203 persons Future-oriented HR Pool
Securing core strategic technology (case, total)	43	43	100	54	105	
Future-oriented HR Pool (person)	2,100	2,203	105	Over 10% of all employees	Over 10% of all employees	
Distribution underground lines (%)	16.4	16.69	102	16.9	Over 21 (2022)	16.69 % Distribution of underground lines
T&D loss rate (%)	Below 3.7	3.60	103	Below 3.7	Below 3.7	3.60 % T&D loss rate
Expense for environmental investment (in 100 millions of KRW)	40,000	38,391	96	40,500	45,000	KRW 3.8 trillion Expenses for environmental investment
Amount of GHG emissions (1,000 tons CO ₂ e)	1,590	1,309	121	1,610	1,610	
Customer satisfaction (score)	98.8	90.6	94	91.5	94.4	10.26 minutes Power cut time
Power cut time (minute)	10.53	10.26	103	9.90	7.91	16.5 hours Hours of voluntary work per person
Hours of voluntary work per person (hr./person)	16.5	16.5	100	17	20	
Number of voluntary work (number)	12,000	12,160	101	12,205	13,000	
Support for eye-opening surgery (person)	100	153	153	100	Total 1,004 (2021)	
Ratio of purchasing SME products (%)	70.0	70.4	101	70.5	Over 71	70.4 % Ratio of purchasing SME products
Export performance of overseas market development for SMEs (USD 10,000)	30,282	31,584	104	31,837	38,000	
Hours for training and education (hr./person)	95	93	98	95	100	93 hours Hours for training and education per person
Ratio of female recruitment (%)	Over 20	24.7	124	Over 20	Over 20	24.7 % Ratio of female recruitment
Number of workers hurt in safety accidents (person)	Below 120	98	122	Below 108	Below 70	
Employee satisfaction level (score)	74.2	79.0	106	79.5	80	79.0 scores Employee satisfaction level

1) No peak shaving in 2015, as a result of there being no implementation of demand management due to the stabilized supply and demand status
 2) Integration of the demand management system for the 'demand resource market', maintain 1 million kW of the demand management system in case of an emergency



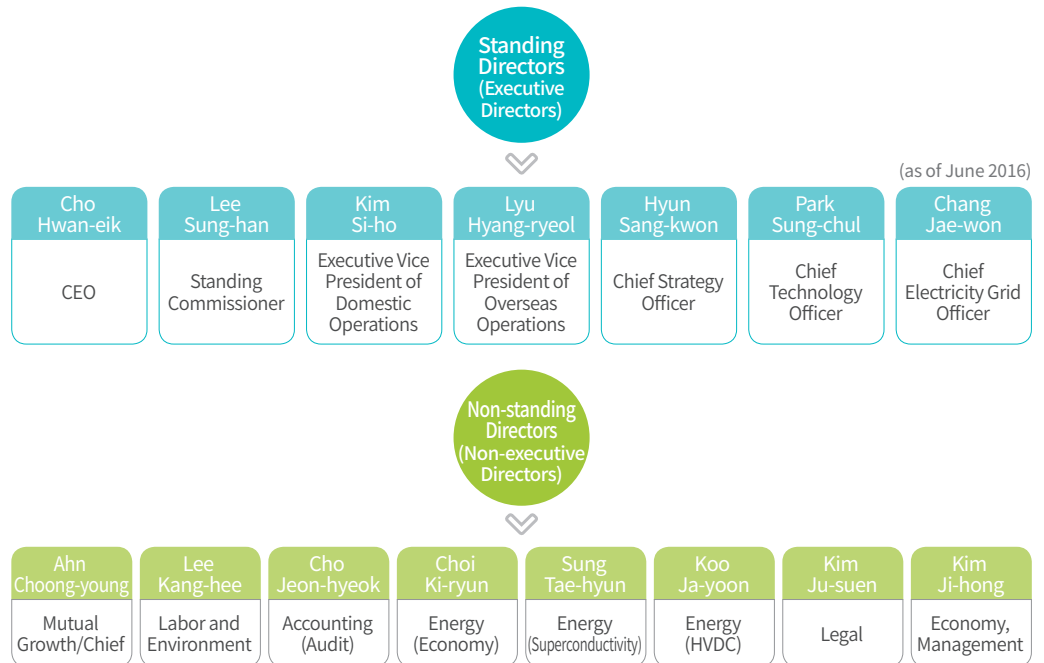
Governance Structure

Operating Performance of Board of Directors in 2015

Number of BOD meetings	13	Revised Resolution Rate	0 %
Preliminary Deliberation Rate	92.9 %	Participation Rate of BOD meeting	94.6 %
Resolutions	42 cases	Participation Rate of Non-executive directors	97.9 %

Composition of the Board of Directors

To secure transparency in corporate management through independent decision making, the majority of KEPCO's directors are non-executive employees. The Board of Directors is composed of seven executive directors (standing) including the CEO and eight non-executive directors (non-standing). The Chief Director is appointed among non-executive directors to collect opinions on the overall management in a fair manner. Non-executive directors are appointed from among a collection of experts in the finance, labor, mutual growth and energy sectors and they contribute to the improvement of the level of sustainable management through management proposals and advice.



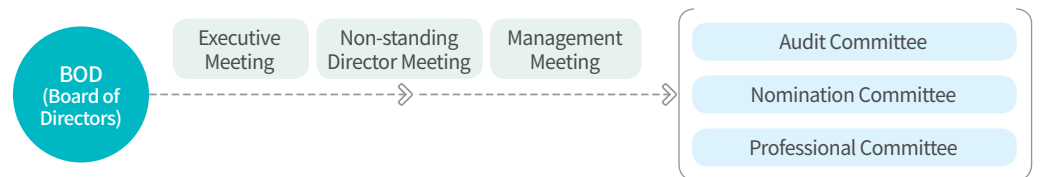
Procedure for the Appointment of Directors

The appointment procedure is specified in the Act on the Operation of Public Organizations and the Articles of Association. When appointing the CEO, KEPCO receives applications for the candidate. The CEO is then recommended by the Nomination Committee, consisting of non-executive directors and non-government members, requested by the Minister of Trade, Industry, and Energy, and finally appointed by the President for a three-year term. An executive director is appointed by the CEO after the resolution of the shareholders' meeting for a two-year term. The Standing Commissioner is recommended by the Nomination Committee, approved by the Steering Committee, requested by the Minister of Strategy and Finance, and appointed by the President. Non-executive directors also serve a two-year term and are recommended by the Nomination Committee, approved by the Steering Committee, and appointed by the Minister of Strategy and Finance. To ensure diversity and proper representation by the BOD members, we are diversifying the scope of institutions that recommend candidates for external directors by asking the Minister of Gender Equality and Family to recommend candidates for the role of female executives. The company reinforces the independence of the committee by excluding the participation of standing directors in the Nomination Committee. KEPCO operates the detailed standards for candidates detailed in the operation regulations of the committee to ensure professionalism, which includes a complete understanding of the power industry and extensive experience in management.

Operation of Board of Directors

The Board of Directors deliberates on important decision-making matters such as management goals and budget in accordance with the Articles of Incorporation and the BOD regulations. A director who has a special interest with a regulation is not allowed to vote on that particular resolution. The minutes written after the conclusion of the BOD are disclosed to stakeholders via postings on KEPCO's website except for special elements such as confidential business information.

Composition



Composition of Subcommittees in the Board of Directors

Name	Members	Role	Performance in 2015	
Audit Committee	2 non-standing and 1 standing directors	Audit investigation	Held 7 times, 81% participation rate, 15 cases for resolutions and 12 cases for reports	
Nomination Committee	Overall majority of non-standing directors	Executive recommendation	Held once, 100% participation rate, recommended non-standing director candidates	
Professional Committee	Management	3 non-standing directors	Prior deliberation	Held 12 times, 100% participation rate, 34 cases for deliberation
	Overseas	2 non-standing directors		Held 4 times, 100% participation rate, 4 cases for deliberation

Assessment and Reward

The CEO signs a pact with the Minister of Trade, Industry, and Energy with respect to management objectives during his or her tenure. The progress that is made with regard to this pact is reviewed by the Performance Appraisal Board for Public Corporations. Standing directors sign a management contract with the CEO for management goals to be achieved and receive incentives based on their performance. The reappointment of non-standing directors depends on the result of the performance assessment. The directors' remuneration is decided within the range approved at the general shareholders' meeting, and non-executive directors receive expenses for their work in accordance with the internal regulations.

Vitalization of BOD

In order to vitalize the activities of the BOD, KEPCO has prepared various systems such as a self-assessment system for the operational performance of the BOD, the publication of a monthly brief to distribute management information, and workshops to reinforce the professionalism of newly appointed non-standing directors. Moreover, we have organized the Nomination Committee and Audit committee in the BOD to reinforce the deliberation and guarantee management engagement by non-standing directors.



2015 ESG Assessment Result Korea's Best Company

Environment, Social and Governance (ESG) Comprehensive Assessment (Sustinvest)

Support Management Activities of Non-Standing Directors

Providing timely management information	Providing a monthly brief and mailing service for the daily management information
Holding a workshop for newly appointed non-standing directors	Sharing the current issues of the company such as bills, electricity transactions, and overseas business
Assisting management-by-conducting tours	Visiting the UAE nuclear power plant construction site and thermal power plants of Jordan, China and the Philippines
Management briefing by the CEO	Explaining the major management situation by the CEO at the BOD



Ethical Management



Ethical Management Implementation Strategy



Ethics Brand: Clean KEPCO Family

'To realize KEPCO as a trusted company of the people with integrity' through the establishment of a strategy for ethical management, KEPCO strives to become a global ethical company by creating an ethical environment that prevents corruption and reinforces activities for controlling corruption practices.

Vision				
Realizing a trusted and respected KEPCO with integrity				
Mid and long-term strategies	Elaboration of the ethical management system	Establishment of strict public corporation discipline	Reinforcement of the corruption control effort	Settlement of the global best ethical culture
Implemented tasks	Ethical culture settlement · activate integrity training · operate integrity agreements	Control corrupt practice in advance · reinforce ethical responsibility · reshuffling of human resources on the job with probable irrationalities	Vitalize anti-corruption system improvement · improve the system in weak areas · provide incentives	Highest integrity level · test level of integrity · enhance feedback activities
Exchange activities	Anti-Corruption & Civil Rights Commission (ACRC): survey for integrity of public institutions 1/yr., evaluation of anti-corruption policy 1/yr. KEPCO: self-survey for integrity 2/yrs., diagnosis for level of ethical management 1/yr.			
Ethical management organization	Participation of high-ranking posts in integrity T/F	Internal inspection body	Responsible personnel for code of conduct and leader of ethical practices	

Ethical Management Implementation System

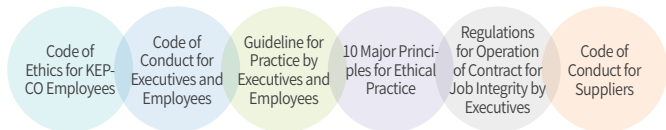
In July 2012, KEPCO established the Code of Conduct for Suppliers which incorporates the ten principles of the UN Global Compact and OECD and ILO labor and environment guidelines for the first time among public institutions. In connection with the electronic bidding system, we reflected the Code of Conduct for Suppliers (14,235 companies) in the conditions for bidding. For compliance with ethical standards, special anti-corruption measures were also established and the 'knock-down scheme' for those practicing corruption was implemented with a 'clean HR reform' for management in relation to probable irrationalities. Moreover, KEPCO is the first public company that carried out the 'real name disclosure of person practiced corruption' and fosters the environment where ethical management is implemented. This allows all executives and employees to take the lead in helping to slow down the integrity philosophy by reinforcing the standards for disciplinary measures on any person who is active but did not execute the action.

Detailed Guideline (12)



Ethical Regulations

KEPCO strives to become a clean and transparent company with the establishment of the Code of Ethics.



Tailored Integrity & Ethics Education

Various educational programs are under development for the voluntary participation of all executives and employees and external partner companies. The special education of the standing audit directors and the chief director was implemented 15 times for the management and high-ranking posts, and five anti-corruption expert instructors qualified by 294 ethical practice leaders and the ACRC are assigned. KEPCO implements the dissemination of anti-corruption training and 'outreach anti-corruption training' for 252 business offices across the nation through these efforts to raise integrity awareness and carry out preventive ethical activities.

Performance for Operation of Integrity Education

Category	Title of Education	Recipient	Number of People
Special education	Integrity education for standing audit directors & chief auditor	High-ranking officials including the management, all employees at headquarters	248
On-site education	Outreach integrity education for business sites	All employees at business sites	10,890
HR Development Center	Integrity education for employees for job education	Employees subject to HR Development Center training	2,032
Anti-corruption Training Institute (ACRC)	ACRC anti-corruption training	Executives and staff in charge of integrity	9
Cyber Training	Self-cyber integrity training	Partner companies	104

Dissemination of the Integrity Culture

In order to improve the internal integrity awareness of all employees, KEPCO established the ten major principles for the Code of Ethics to develop a campaign for the internalization of ethics in addition to 'anti-corruption training. All executives and employees shared the same commitment to root out corruption through contracts for job integrity and we inspired the integrity awareness for those above the head of the branch office through the voluntary registration of property of high-ranking posts. For outside of the company, KEPCO was committed to the ethical management with partner companies through the Code of Conduct for suppliers and focuses on the dissemination of the integrity culture such as operating the integrity partner institute to share the excellent integrity system.

Program	Main Content
Integrity contract for jobs by executives	Integrity contract of executives including the CEO and standing audit directors (12 persons)
Ethical Pledge for each phase of the lifecycle	All executives and employees (20,195 persons)
Integrity agreement with suppliers	Signing an integrity agreement for suppliers in the company (873 companies)
Pledge for the Code of Conduct for supplies	Partner companies concluding a contract with KEPCO (14,235 companies)
Integrity and ethics festival	Above level 2 branch office head (390 persons)
Ethical Consultation center, Discussion forum	Participation in consultation of the ethical dilemma and discussion (13,679 cases)
Integrity problem, Self-diagnosis for ethics	Five areas including morality problem and self-diagnosis for corruption (annual accumulation of 212,891 persons)
Operation of integrity partner institute	Share best cases of KOMSCO, Citibank and KOEM (6 times)

Operation of the Tailored Multi-Channel Reporting System

KEPCO operates various channels for reporting on corruption cases such as autonomous reporting, irrational cases, and the on-site report center. To protect the identities of people who report unfair and illegal cases, the company consigned to the Anonymity Report System in May 2014. The system is available 24 hours a day via smartphone, and sends reports to an external institution to support the reporting of such cases.

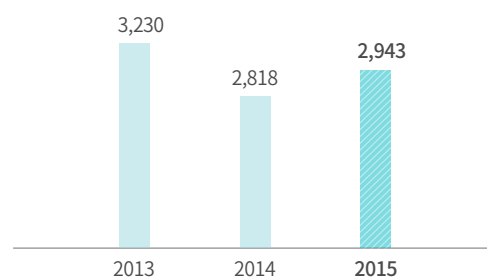
Channel for Reporting Irrational Cases

Category	Number of reported cases		Disclosing the identity	Reporting method	Notes
	2014	2015			
Internal/Autonomous report	3	5	Real name/Anonymity	Online	Intranet
Irrational Case Report Center	112	72	Anonymity	Online	External website
On-site Report Center	14	-	Anonymity	Postcard for report	Providing the enclosed postcard
Anonymity Report System	31	95	Anonymity	Online	External consignment

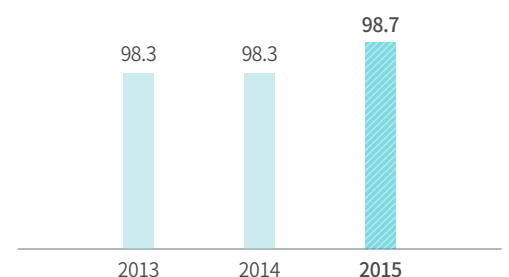
Operation of the Complaint Processing System

KEPCO integrated various channels including the Internet for reporting complaints into the in-house reporting system called Sinmungo. The company received 2,943 cases in 2015 and processed 98.8% of the cases within seven business days, the standard processing period. The complaint processing system is operated transparently and reasonably through the independent review of the handling results by KEPCO ombudsmen, consisting of non-executive directors.

Number of Processed (Unit : case)



Rate of Timely Process Complaints (Unit : %)





Main Risk

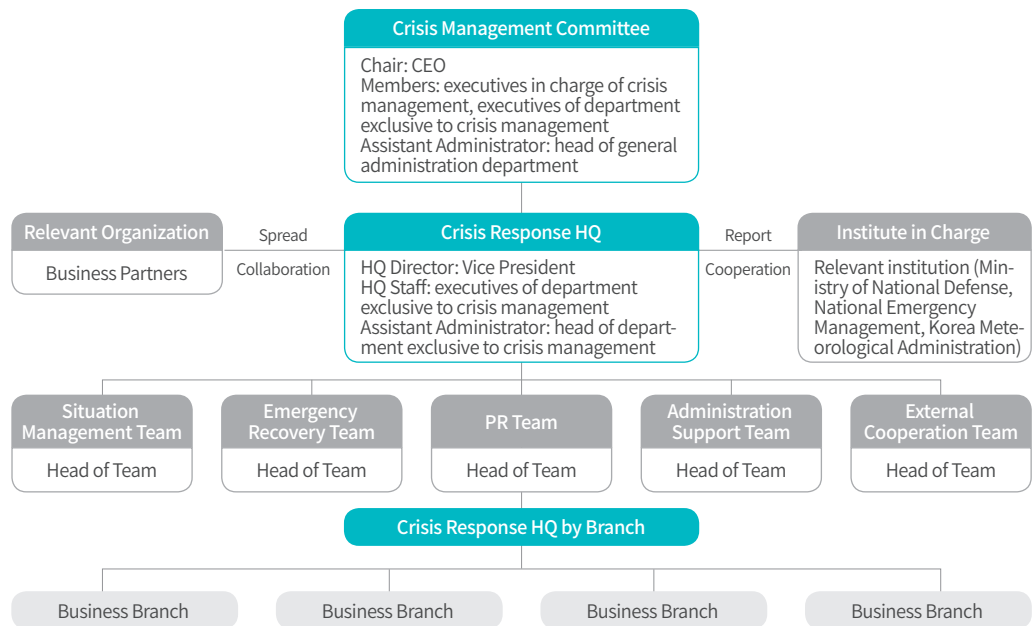


Risk Management System

KEPCO designates and manages departments in charge for ten risk types in four sectors (management risk, disaster, promotion, and conflict) to prevent any risks to management in advance. The departments in charge prevent and prepare for any risks and detect the warning signs by enacting and managing a risk management manual for each risk type and take measures based on the organizational system and procedures for recognizing any risks.

Category	Management Risk	Disaster	PR	Conflict
Risk Type	<ul style="list-style-type: none"> Deteriorating annual profit performance 	<ul style="list-style-type: none"> Short electricity supply due to dramatic increase in demand Electricity supply interruption due to disasters and catastrophes Electricity supply interruption due to breakdown in the electricity grid Electricity supply interruption due to cyber terror attacks Epidemic crisis 	<ul style="list-style-type: none"> PR due to a crisis in the electricity sector Damaging the corporate image due to a massive corruption incident related to executives and employees 	<ul style="list-style-type: none"> Complaints over the construction of transmission and substation facilities Electricity supply interruption due to labor disputes

Composition of Emergency Response Organization

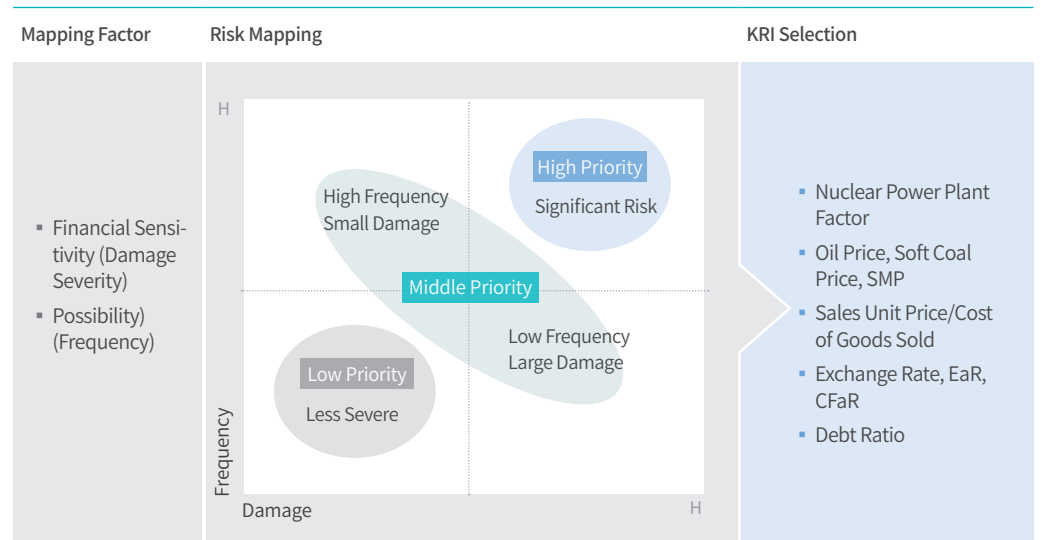


The level of crisis is divided into four stages: Attention, Caution, Alert, and Serious. At the Attention level, the departments in charge detect the warning signs for an impending crisis. At the Caution level, the departments in charge check the cooperative system through communicating about the situation with overall supervising departments, relevant departments, and relevant institutions. At the Alert level, the company establishes measures and checks on the plan for the appropriate response. Crisis Response Headquarters is being operated and carries out activities for crisis response at the Serious level.

Management Risk

KEPCO integrates and manages company-wide financial risk and debt risk to prepare for any risks that threaten the business environment including financial risk while setting the contingency plan in relation to the scenario to be equipped with countermeasures depending on the level of crisis. Moreover, we selected the ten Key Risk Index (KRI) and utilize it with the KEPCO Business Index, which was self-developed in February 2015, for complementary risk management.

Key Risk Index Derivation using Risk Mapping



Disaster and Catastrophe

KEPCO continuously improves and supplements the response manual, incident management system and management system for restoration-related manpower, materials and equipment, and develops reaction capabilities through regular training.

In particular, we reinforced the cooperation system of relevant institutions by concluding an agreement for a disaster and safety management body with a group of electricity companies and established a mid-to-long-term master plan in line with the government's safety innovation plan, and implemented 1,131 training programs company-wide including the Safe Korea drill. During the four specific periods including the extensive diagnosis of national security, the budgets for the facility safety inspection and equipment reinforcement & maintenance were increased by 40% compared to the previous year to prevent equipment failure and minimize damages.



Video Conference of the Disaster Response Drill



Site Inspection of Electric Equipment during the Extensive Diagnosis of National Security



Stakeholder Communication & Engagement

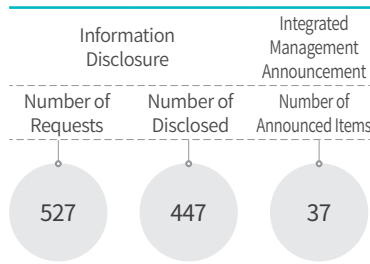


Under the management slogan of Become One Mind and Achieve Unity, KEPCO strives for permanent communication based on the ‘trust and communication’ for the rights and interests of stakeholders and constant value creation. A variety of communication channels are in use to reflect the valuable comments of stakeholders to management activities. KEPCO received the grand prizes in the public service category of the 2015 Korea Mobile Awards and in the SNS category of the 2015 Korea Communication Awards through consensus building via SNS and the reinforcement of online channels that are convenient and quick to access through the renewal of websites and a contest for people’s ideas. Moreover, we continue to make efforts to address the key issues of electricity industry stakeholders such as consulting for conflict mitigation with private professional institutions to prevent issues of stakeholders during power facility construction and actively solve the conflicts. Through information sharing channels, including periodic exchange with domestic and overseas business partners and presentations, KEPCO has carried out activities for the sustainable value creation with stakeholders.

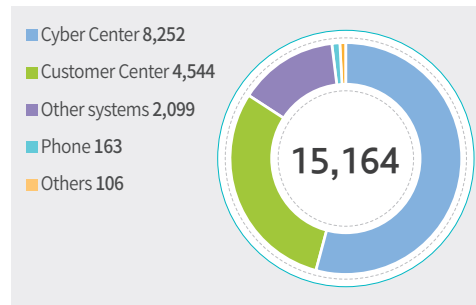
Efforts to Communicate with Each Stakeholder on Issues of Concern

Stakeholders	Major Interests	Communication Methods
People, Customers 	<ul style="list-style-type: none"> Diversifying communication channels 	<ul style="list-style-type: none"> SNS, Meeting, Contest
Shareholders, Investors 	<ul style="list-style-type: none"> Enhancing corporate value 	<ul style="list-style-type: none"> IR, Public announcement General shareholders' meetings
Local Communities 	<ul style="list-style-type: none"> Property rights, Environmental rights 	<ul style="list-style-type: none"> Public hearing Social contribution
Government, Relevant Institutions 	<ul style="list-style-type: none"> Decision on policy, Leading the public opinions 	<ul style="list-style-type: none"> Seminar, Forum Cooperation channels
Domestic Partners 	<ul style="list-style-type: none"> Producing H/W and S/W 	<ul style="list-style-type: none"> On-site VOC Presentation Fostering environment
Overseas Partners 	<ul style="list-style-type: none"> Joint Owner, Financing, Orderer and Investee government 	<ul style="list-style-type: none"> Regular exchange Benchmarking
Executives and Employees 	<ul style="list-style-type: none"> Entity executing value 	<ul style="list-style-type: none"> Direct announcement by the CEO Vision portal Portal for giving management advice
Labor Union 	<ul style="list-style-type: none"> Profits for labor union members 	<ul style="list-style-type: none"> Labor-Management committee Collective bargaining Workshop

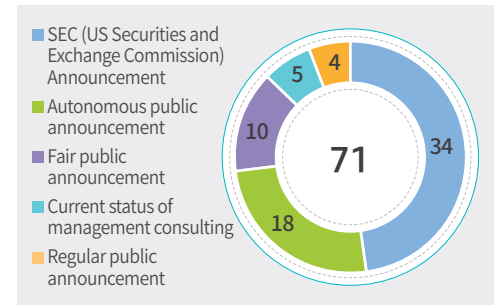
Performance of Information Disclosure and Integrated Management Announcement in 2015



Performance of VOC Operation in 2015 (Unit : case)



Performance of Corporate Information Announcement in 2015 (Unit : case)



Communication and Efforts to Address Issues

● External ● Internal

- Operated KEPCO college student supporters (3rd, 137 students)
- Contest for people's ideas on electricity service improvements (2,254 participants in 2015)
- Contest for happy energy contents (printed AD, commercials) (295 cases in 2015)

- Implemented high-intensity debt reduction (achieved 99.9% of debt ratio, exceeded KRW 10 trillion in net profits, and increased market capitalization by KRW 4.7 trillion)

- Held 30 IRs for domestic and overseas investors, 3 general shareholders' meetings, 37 public announcements of integrated management, and 71 corporate disclosures

- Implemented consultation for addressing conflicts with private and public professional institutions (4 cases including Changwon substation)

- 119 Disaster Rescue Squad, only case among public institutions (11 times including emergency medical service support for Gwangju Universiade)

- Meeting with heads of SME-related organizations and businessmen in Gwangju and Jeonnam (9 relevant organizations in Jan. 2015)
- Export promotion meeting for the electricity sector (Apr. 2016)

- SMEs VOC (May, 2015)
- Collect comments on purchase and other systematic improvements via company visits
- 2015 Bitgaram Mutual Growth Festival (200 companies in May, 2015)
- Outreach mentoring for the registration process of equipment and instruments suppliers (Jan-Mar. 2016)

- Composed the Working Electricity IoT Alliance (SPIN; Smart Power IoT Network) working group and Kick-off meeting (Mar. 2016)
- Roadshow of KEPCO's export supporting system for prominent regional companies (Jun. 2016)

- Held BIXPO* 2015 (about 30,000 visitors from 40 countries in Oct. 2015) → the first international electricity sector exhibition

- CEO global marketing (interviews with high-ranking government officials of 18 countries and CEOs)

- Expanded channels for sharing vision and core values (presentation tour by region with the participation of management level – conducted vision concert)

- Realized the trust-based HWP site (fostering 597 change & innovation execution leaders)
- Company-wide meetings with directors of business sites (2 times), and communication mails with chiefs of organizations (5 times)

- HQ: Labor-Management Committee (4 times), Collective Bargaining (3 times), Wage Negotiations (3 times)
- Business Site: Labor-Management Committee and Labor-Management meetings (1,008 times)
- On-Site Communication Enhancement: presentations for the explanation of current issues at business sites (439 times)

* BIXPO (Bitgaram International Exposition of Electric Power Technology)



Materiality Assessment

Materiality Assessment and Drawing Major Issues

KEPCO prepared this report in accordance with the four reporting principles of GRI (Global Reporting Initiative); ‘sustainability context,’ ‘materiality,’ ‘stakeholder engagement’ and ‘completeness.’ In order to put together the major issues, international standard analysis, benchmarking of leading companies, media research and stakeholders research were implemented, and the major issues related to the sustainable management activities of KEPCO were identified based on the analysis results. A materiality assessment was conducted with the acquired major issues as per the GRI G4 Guidelines and final report issues were selected and reported in a balanced manner through the prioritization process.

Step1 Composing the Issue Pool

Based on economic, environmental and social influences on overall KEPCO’s business activities or the assessment and decision-making of stakeholders, reporting aspects and other relevant issues were identified and a potential issue pool was composed with 29 issues.

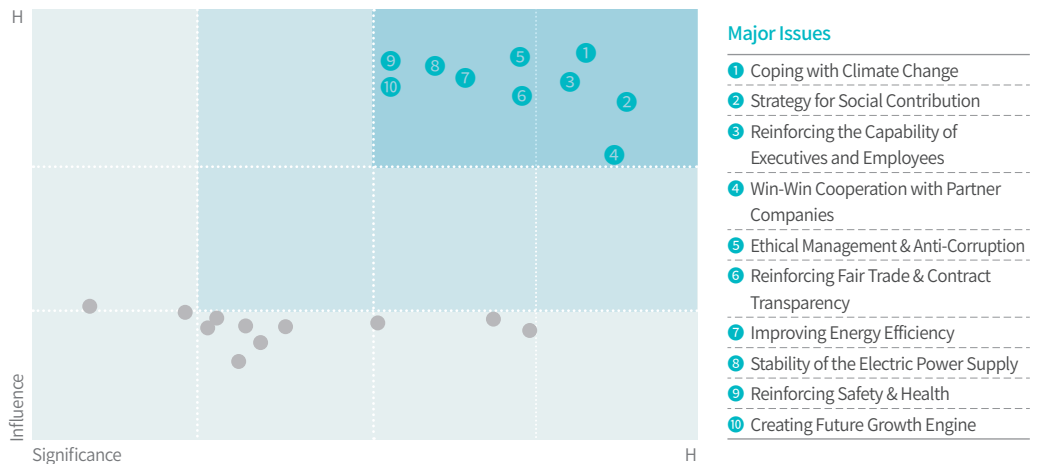
Step2 Prioritizing Issues

For the prioritization of the potential issues drawn via the issue pool organizing process, a survey of 1,476 KEPCO stakeholders was conducted. The level of KEPCO’s sustainable management was identified through the stakeholders’ survey, and the materiality aspect and materiality assessment matrix were set by incorporating the influence on the stakeholders’ decision making and the significance on business.

Step3 Verifying & Reviewing Validity

Lastly, ten selected major issues were structured in the contents of the report by considering meaning, scope, aspect boundary, reporting period and reporting limitation. KEPCO is to report, in a reasonable and balanced manner, our positive and negative influences and performances on the economic and social environment. Moreover, KEPCO runs various communication channels including conducting a survey of readers’ opinions to allow for the organization performance evaluation of stakeholders and to reflect their comments.

Materiality Assessment Matrix



Aspects	Core Issues	Reporting Boundary					Reporting Major Issues
		Internal	Customers	Shareholders, Investors	Local Communities	Government, Relevant Institutions	
1 Emissions	Coping with Climate Change	●	●			●	Preserving the Environment
2 Local Communities	Strategy for Social Contribution	●			●		Joining Humanity
3 Training and Education	Reinforcing the Capability of Executives and Employees	●					Caring People
4 Procurement Practices	Win-Win Cooperation with Partner Companies	●					Joining Humanity
5 Anti-Corruption	Ethical Management & Anti-Corruption	●	●	●			Ethical Management
6 Anti-Competitive Behavior	Reinforcing Fair Trade & Contract Transparency	●					Joining Humanity
7 Energy	Improving Energy Efficiency	●				●	Preserving the Environment
8 Availability & Reliability	Stability of the Electric Power Supply	●	●			●	Respecting Customers
9 Occupational Health and Safety	Reinforcing Safety & Health	●			●		Caring People
10 Added Aspect	Creating Future Growth Engines	●		●		●	Adding Technology

Creating Value with Stakeholders

based on Trust and Commutation

KEPCO strives to create greater future value with all of its stakeholders.

Our close communication based on trust will ensure a clean and convenient energy world, contributing to a brighter future.



Five Core Issues

Respecting Customers	22
Adding Technology	30
Preserving the Environment	40
Joining Humanity	50
Caring People	60

Respecting Customers



Our Approach

In the rapidly changing environment of the energy industry, the electricity industry is at an important point as it attempts to raise efficiency and competitiveness and develop optimized measures for using electric energy. Based on energy solutions combined with IT technology, KEPCO will not only fulfill its original mission to supply high-quality and stable electricity, but also improve the people's happiness through communication, consensus, and service innovation.

Our Plan

- Supply the world's best quality electricity using next-generation technology
- Create customer value through the improvement and operation of a customer-oriented system
- Secure the stability of the electricity supply and demand with an improvement in energy efficiency and smart demand control



Ranked No.1 in the 'Electricity Supply' Category of the Business Environment Survey by the World Bank for 2 Years

Ranked No. **1** 



Amount of Energy Saved by Supplying High-efficiency Equipment in 2015



76,211 MWh



SAIDI for a Year in 2015



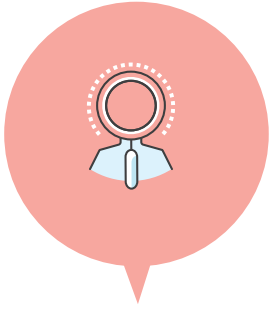
10.26 minutes



3.60 %

T&D Loss Rate in 2015





Create Customer Value

Won the 2015 Korea

Good Company Awards

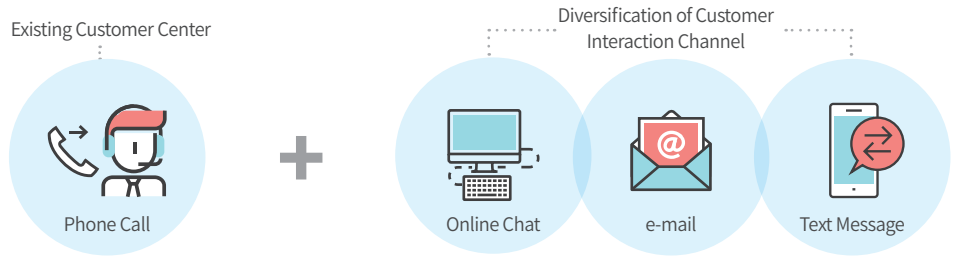
from the Korean Standards Association



Smart Service Innovation

KEPCO enhances communication with customers through service innovation reflecting the customers' needs and is the first public institution that has adopted smart customer centers with multi-channels, enabling everyone to have an electricity consult via online chat, e-mail and text message beyond the existing call center. We strive for interactive communication and customer value creation to listening to the VOC (voice of customers) through a contest for electricity service improvement ideas and KEPCO college student supporters.

Smart Customer Center Service



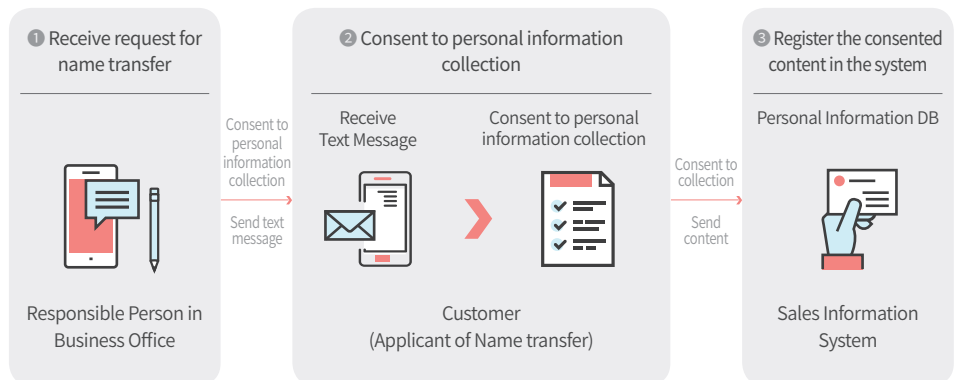
Positive Discrimination Program

KEPCO puts a considerable amount of effort into realizing happy energy with the people by implementing tailor-made electricity charges for the energy poverty class and students, including discounted electricity charges for those in energy welfare blind spots and elementary, middle and high schools during the summer and winter by 15%.

Reinforcing Security for Customer Information

To reinforce customer information protection and enhance people's trust, KEPCO has improved the procedures for the collection and consent on personal information, which is needed in the process of applying for and changing electricity use, and established the standard procedure for customer identification and information provisions. KEPCO will continuously implement operational and technical protection measures for customer information by reinforcing security education for the customer center and inspection suppliers and operating a management log for personal information.

Example of the Consent System of SMS Personal Information Collection



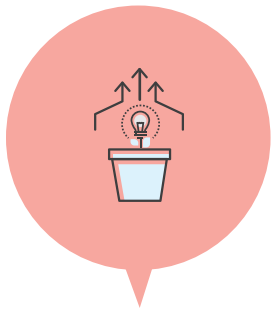
SPECIAL



World's First SNS Billing & Collecting Charges – Leading the Vitalization of the FinTech* Market

KEPCO introduced a SNS (KakaoTalk)-based collecting method for the first time in the world to improve customer convenience in accordance with the recent environmental changes in collecting system such as domestic and overseas mobile payment market expansion. This allows customers to check their electricity bills and pay at the same time via SNS rather than paper bills. KEPCO has actively adopted an advanced collecting system to ensure convenience of payment for the people at every stage of financial environmental change. This SNS billing & collecting system will not only save the billing and collecting expenses of KRW 11.7 billion annually but it has also helped to establish an interactive communication channel between KEPCO and its customers as well as an environment for new additional service provisions.

* FinTech: IT-based financial service, a compound word of the Financial and Technique. Improvement of Electricity Quality



Improvement of Electricity Quality

Ranked No. 1
'Electricity Supply'

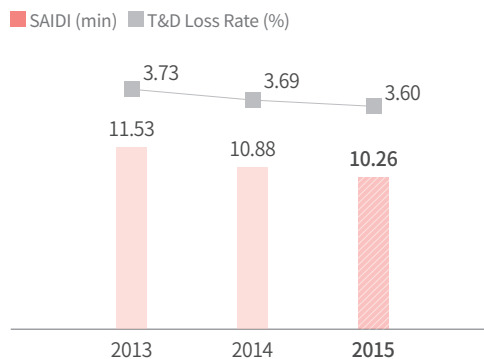
category of Business Environment Survey by the World Bank for two consecutive years



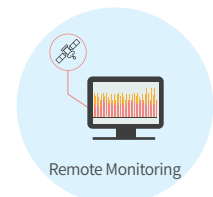
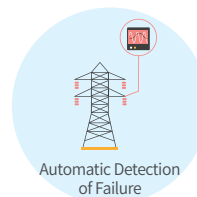
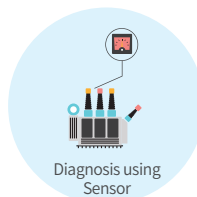
Supplying High-Quality Electricity

KEPCO has the world's best capabilities for supplying electric power and manages nationwide power facilities systematically with the Drone diagnostic technique which is equipped with optical and thermal imaging cameras, the application of an intelligent system for the low voltage system, and an improvement in the facility diagnosis and system operation technique carried out by engineering personnel. We are also at the front of the future core technologies in the electric power industry by establishing an IoT-based facility operating system, as well as developing a prediction system for the remaining life of big-data based cable and operating multifunctional watt-hour meter to improve the electricity quality for our customers. Based on these, KEPCO was ranked top in the electricity supply sector of the World Bank's Business Environment Survey in 2015 by decreasing SAIDI to 10.26 minutes by 5.7% year on year, and achieving 99.9% of the distribution voltage holding ratio and 3.60% of the T&D loss rate. In addition, major national events such as the Summer Gwangju Universiade and World Water Forum were successfully held with the zero-defect supply of electricity. KEPCO will continue to maintain the world's highest quality electricity through a smart system operation, coupled with the improvement in the expertise of its engineers which will secure the next-generation core technology.

Change of SAIDI and T&D Loss Rate



Drone: Equipped with thermal imaging and video camera



Dramatic Reduction in the Failure of Transmission & Substation Facilities

14 Cases (2014) →

5 Cases (2015)

Expansion Areas of Electricity Supply

KEPCO carries out the electricity supply business based on requests by local governments for remote and isolated regions where it is difficult to supply electricity due to geographical conditions. In 2015, the company finished securing the electricity supply for 27 households in remote and isolated regions. In March 2016, there were a total of 254 households in remote and isolated regions without access to the transmission and distribution grid, including 99 households that did not meet the necessary requirements in the Act on the Promotion of Electrification in Agricultural and Fishing Villages. This number has decreased through our continuous investment in facilities and the expansion of the decentralized generation in isolated regions (Micro Grid).



Electricity Supply to remote areas via the Micro Grid

Current Status of Transmission and Distribution Facilities in 2015

Transmission Line	Substation Facility Capacity	Distribution Line
33,316c-km (Transmission Line 3,755c-km)	287,513MVA	465,278c-km (Underground line 45,138c-km)
765,345kV : 10,417c-km 154,66, DC 180kV : 22,899c-km	Substation : 822 (Unmanned Substation 689)	Support : 8,960,000 units Transformer : 2.12 million units



Launch Ceremony for the New Industrialization of Superconductivity Electric Power Equipment

Optimized Electric Power System Plan

KEPCO has established the optimized electricity grid to prepare for an increase in the demand for electricity and supplies high-quality electricity to customers in a stable manner. The company has established and implemented plans, focusing on maximizing the utilization of the existing transmission and substation facilities and building the future transmission grid to set up an electricity grid in harmony with human beings and the environment.

In the seventh long-term transmission and substation facility plan (2015), the optimized system plan was established emphasizing the universal value of the people. The company achieved the financial results of KRW 339.7 billion through the adjustments of 35 projects by considering social acceptability and local development conditions, and minimized the construction of a new transmission line by creating a package of the power generation and transmission facility plan. System reliability has also been secured by establishing a single system substation reinforcement plan and the application plan of the FACTS facility expansion.

KEPCO has taken the lead in the renewable energy vitalization policy including the establishment of a plan for infrastructure expansion; discovering stations that are vulnerable to connection to renewables and helping access to the system, by securing an additional 6,800MW through the improvement of the standard of connection to renewable energy. Moreover, the construction of a 500kV-class HVDC project is promoted with domestic self-developed technologies to secure the new technology of private companies and induce the localization of equipment and instruments. For fostering and expanding the independent foundation of domestic HVDC independence, KEPCO is conducting joint studies with 10 research institutions, holding a HVDC electric power engineering workshop and expanding support for universities and R&D centers.

Lastly, KEPCO created a plan for developing and applying new technology for interconnection of power grid to establish the future electricity grid. We developed AC 154kV superconductivity of the world's largest capacity (600MVA); built a demonstration facility; set strategic roadmap; reduced new construction expenses by 30% and controlled new areas of construction by introducing Korea's first capacity increase of new cable for expanding the grid supply capacity. Based on these efforts, KEPCO established the optimized electric power system plan by placing great importance on the universal values in harmony with human beings and the environment to supply high-quality electricity.

Systematic Diagram

- ⊙ 765kV Substation
- 765kV System
- 345kV Substation
- 345kV Overhead System
- ⋯ 345kV Underground System
- Power Plant
- ▶ DC±180kV Cable link




Management of Electricity Demand

Maintain Stability in Supply & Demand with Systematic Response to Emergency Supply & Demand

KEPCO promotes stability in the supply & demand of electricity by maintaining an emergency supply & demand response scheme and managing demand systematically. To prepare for any crises in the supply & demand of electricity, various electricity demand management schemes are in operation including the ‘utilization of supply capacity in the private sector,’ which uses privately-owned commercial independent generators, and an ‘emergency power-saving demand controlling scheme’ implemented at the ‘caution’ level, in which the reserved power is less than 3 million kW of a supply & demand emergency. As of late 2016, it is expected to reach 102.72 million kW in electricity facility capacity and 8.46 million kW in peak demand, and the stable supply and demand of electricity is anticipated with 21.4% of a reserved rate (based on the 7th Basic Plan for the Supply and Demand of Electricity).

Major Demand-side Management Control Business

Category	Main Projects
Improving Efficiency	High-efficiency devices, heat-pump boiler, LED replacement in office buildings, etc.
Managing Load	Designated period, Weekly notice for demand control, Utilization of private supply capacity*

* Utilization of private supply capacity: utilize privately-owned commercial independent generator or generator of regional electricity business operator to reduce the load

Continue to Supply a High-efficiency Device and Improve the Energy Efficiency of Office Buildings

KEPCO saved 76,211MWh of energy and reduced the greenhouse gases to 35,043tCO₂ in 2015 through the continuous supply of high-efficiency devices, and also saved 560MWh of energy annually by drawing the GHG reduction factor via the energy diagnosis of the office building and promoting the energy reduction policy. In particular, KEPCO leads in social contribution activities such as replacing 407 worn-out midnight boilers with high-efficiency heat-pump boilers. This came about through the promotion of a win-win cooperation model based efficiency project for heating systems in welfare facilities with local government in 2015.

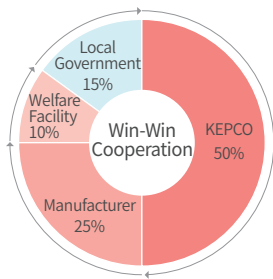


Performance of High-Efficiency Device Supply Project

Category	High-Efficiency Freezer	Regenerative Brake	Heat Pump Boiler	Premium Motor	Office Building LED	Transformer Replacement	Total
No. of Units Supplied (piece)	25	465	2,370	328	20,457	44,041	67,686
Reduction Amount (MWh)	2,136	1,276	28,060	1,835	991	41,913	76,211
CO ₂ Reduction (tCO ₂)	982	587	12,902	844	456	19,272	35,043

Promotion of Efficiency Project for Heating Systems in Welfare Facilities

KEPCO carried out a project in 2015, replacing 407 worn out midnight boilers in welfare facilities with high-efficiency heat pump boilers which was a win-win cooperation model with the local government. Through this project, KEPCO cut the midnight load whereas the local government reduced the budget for heating support and welfare facilities, decreased facility expenses and electricity charges.



“Reduce Investment Costs in Welfare Facility by 90% and Cut Heating Bills by 50%”

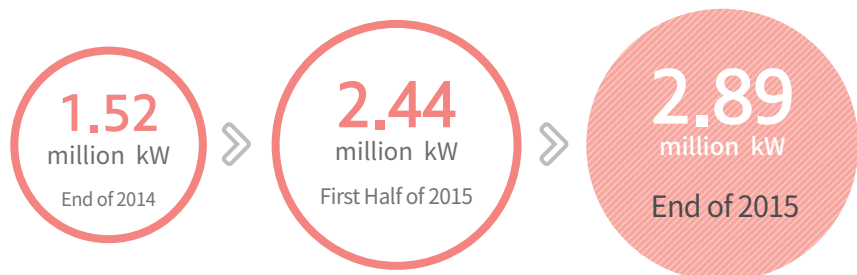
KEPCO (Aid for Installation Fee)	Local Government (Budget Support)	Manufacturer (Cut Supply Price)
<p>Midnight Electricity Reduction → Increase of Operating Profit</p>	<p>Heating Support Fund Savings → Use in Other Welfare Project</p>	<p>Create & Expand Initial Market → Increase Sales</p>

The Promotion of a New Electricity Service and New Biz Model for Smart Demand Management

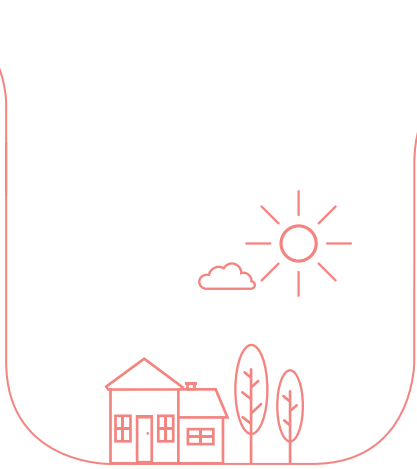
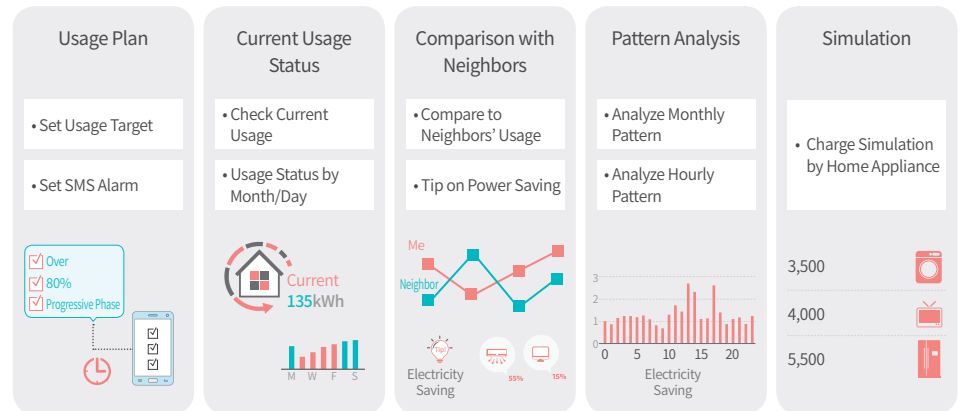
KEPCO discovered and implemented new demand management services and a new business model through SME cooperation in accordance with the direction of government policy to foster a new energy industry and environment.

First, the company actively supports the vitalization of the demand resource trade market (Negawatt market) launched in November 2014 as a new platform for the electric power market based on the necessity to address the inconveniences of SMEs. This can be done by promoting the systematic support for SMEs with a lack of an operation and development system capacity through mentoring system, and by deploying personnel in charge of responding through a business office.

Expansion of Market Participation Demand Resource



Second, KEPCO began conducting the test operation of a daily life consulting service known as the ‘electricity bookkeeping service’ in November 2015. This will help induce the reasonable power consumption of customers by providing valuable electricity information to customers based on electric power big data.



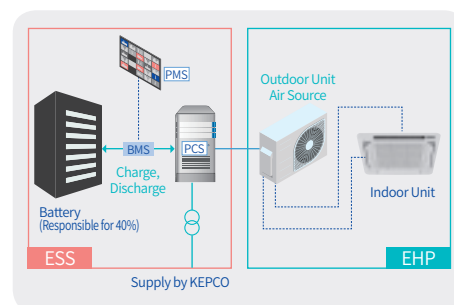
Third, the ‘National electricity map’ is being developed which displays the areas where electricity-guzzling customers are concentrated on the map for regional demand management. KEPCO plans to continuously put considerable efforts into inducing voluntary energy saving and provides opportunities for creating profits through the analysis of electric power big data such as the electricity usage pattern by business type and region, and the provision of information and consulting services that meets the needs of customers and the demand management business.



National Electricity Map

Fourth, KEPCO continues to discover and promote the commercialization of a new energy business model using new electric power technology. We also contribute to peak control through the new supply project of an ESS cooling & heating facility and the ESS regenerative brake.

ESS Cooling & Heating Facility



ESS Connected Regenerative Break



Adding Technology

Our Approach

Along with the stagnant growth in the domestic demand for electricity and the expansion of the private generation (IPP, Independent Power Plant) in emerging countries, KEPCO has accelerated entry into the overseas market based on our experience in the domestic and overseas electricity business, brand, and competitiveness. Through these efforts, we will not only secure future growth engines but also pioneer the global market by reinforcing our next-generation technology competitiveness.

Our Plan

- Generate 20% of company-wide sales from the overseas sector by 2025 by establishing the Global KEPCO Belt
- Lead the new business sector by developing and commercializing ten strategic technologies
- Create new jobs and lay the groundwork for overseas expansion by developing the next-generation technology

Capacity of Overseas
Generation Facilities

6.7^{GW}





236 MW

Established the World's
Largest ESS for Frequency
Regulation
(Established 184MW in 2015)



Sales from Overseas Business

KRW **4.9** trillion



43 cases



Secured Core Strategic
Technology (total)



Accelerating Inroads into the Global Market

Conducting 37 Projects in 22 Countries throughout the World

Since our first entry into the Philippines in 1995, KEPCO has carried out business not only in Southeast Asia but also in the Middle East, Central and South America, and Africa. The company currently conducts 37 projects in various sectors including the nuclear power, thermal power, renewable energy, and transmission and distribution sectors in 22 countries.

Nuclear Power: Construction of High-Quality Nuclear Facility in the UAE

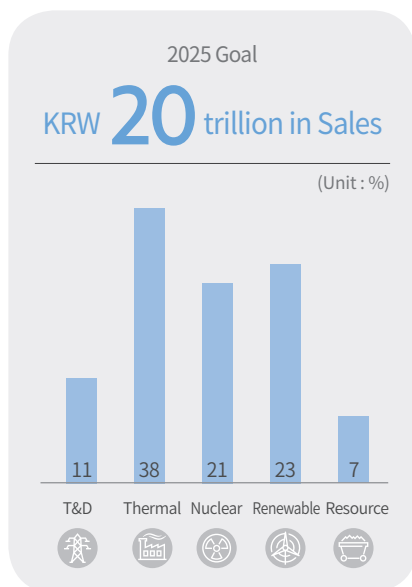
In 2009, KEPCO won its first overseas nuclear power plant project; that was worth USD 18.6 billion which was for the construction of four 1400MW units of Korean-standard nuclear reactors (APR1400, 5,600MW in total) in the UAE. After completing construction of the first unit in May 2017, the company will construct the remaining three by 2020. KEPCO is focusing on and reinforcing strategic partnerships with countries subject to short-term orders (Saudi Arabia, Czech Republic, South Africa, and Vietnam) to win additional orders, and also actively carrying out the development of a new convergent technology model for export.



Thermal Power/Renewable Energy: Entering into Central and South America and Africa following Southeast Asia, China and the Middle East

KEPCO is successfully operating power plants in Cebu, Ilijan and Naga, the Philippines and accounts for 10% of the nation's entire electricity supply. In China, the company operates the generation business of 8,988MW in Shanxi, while solidifying its position as the largest foreign wind power business operator in China by constructing and operating the wind power plant of 1,314MW in total in Inner Mongolia, Liaoning, and Gansu.

In the Middle East, we won consecutive orders for the Al Qatrana Power Project, Jordan in 2008, thermal power plants in Rabigh, Saudi Arabia in 2009, Shuweihat S3 Gas Power Project, UAE in 2010 and the Amman Diesel Internal Combustion Generation Project, Jordan in 2012, and have currently created stable profits from these projects. Moreover, we established an outpost for expanding into the electricity market of Central and South America with the successful completion of the Norte II gas-fired combined cycle power plant, Mexico in late 2013, and expanded our entry into Africa by acquiring the right to operate Egbin gas plant in Nigeria in November, 2013.



UAE Nuclear Facility Construction Site



Norte II Gas-fired Combined Power Generation, Mexico



Wind Power Generation, Inner Mongolia, China

Transmission and Distribution/New Business: Diversification of the Overseas Business Portfolio

KEPCO has conducted projects by utilizing our world-renowned technological knowhow accumulated in the domestic electricity grid business, including winning orders for the transmission and distribution construction and consulting in Kazakhstan, Egypt, Myanmar, and Saudi Arabia. In 2015, KEPCO concluded PPA for the Fujeij project in Jordan, initiated in 2013, and won an order for the photovoltaic power business in Japan. In addition, we strengthened the foothold for entry into the overseas market in the transmission and distribution/new business sector by concluding new business, including the smart grid, and implementation agreements with four Central and South American countries.

Global Network

Establishing the Global KEPCO Belt

Based on the world-class technology, brand value and accumulated overseas business capabilities, KEPCO has promoted the goal to create KRW 20 trillion worth of overseas business, which accounts for about 20% of total sales, by 2025. It plans to conduct overseas business as a 'global energy belt' in the future that links North and Central America – South America – Africa – Middle East- Asia by establishing an 'energy hub' in the Southeast Asia region and securing energy solutions across all continents and sectors.



SPECIAL



First Step towards Building the Dubai Smart City

KEPCO held a groundbreaking ceremony for a pilot project of the city smart grid station in Dubai in May 2016. This project is the first phase of the pilot project for establishing the Dubai Smart City* to build KEPCO's smart grid station model including USD 3 million worth of photovoltaic power, ESS and an integrated operating system. Once this project is successfully completed, it will serve as an opportunity to disseminate our smart grid station model throughout the whole city. In particular, the export outcomes of SMEs have been witnessed in installing the photovoltaic module, battery, PCS and others in cooperation with KEPCO and six SMEs in the new energy business sector. Besides, KEPCO and DEWA** are carrying out technical cooperation in the overall smart grid such as the AMI (Automatic Meter Infrastructure) and distribution automation. KEPCO will take the lead in responding to climate change and realizing a creative economy by securing a future growth engine through expansion with new energy sector SMEs into a global new energy industry market such as smart grid, micro grid, ESS, charging infrastructure for electric vehicles and renewable energy.

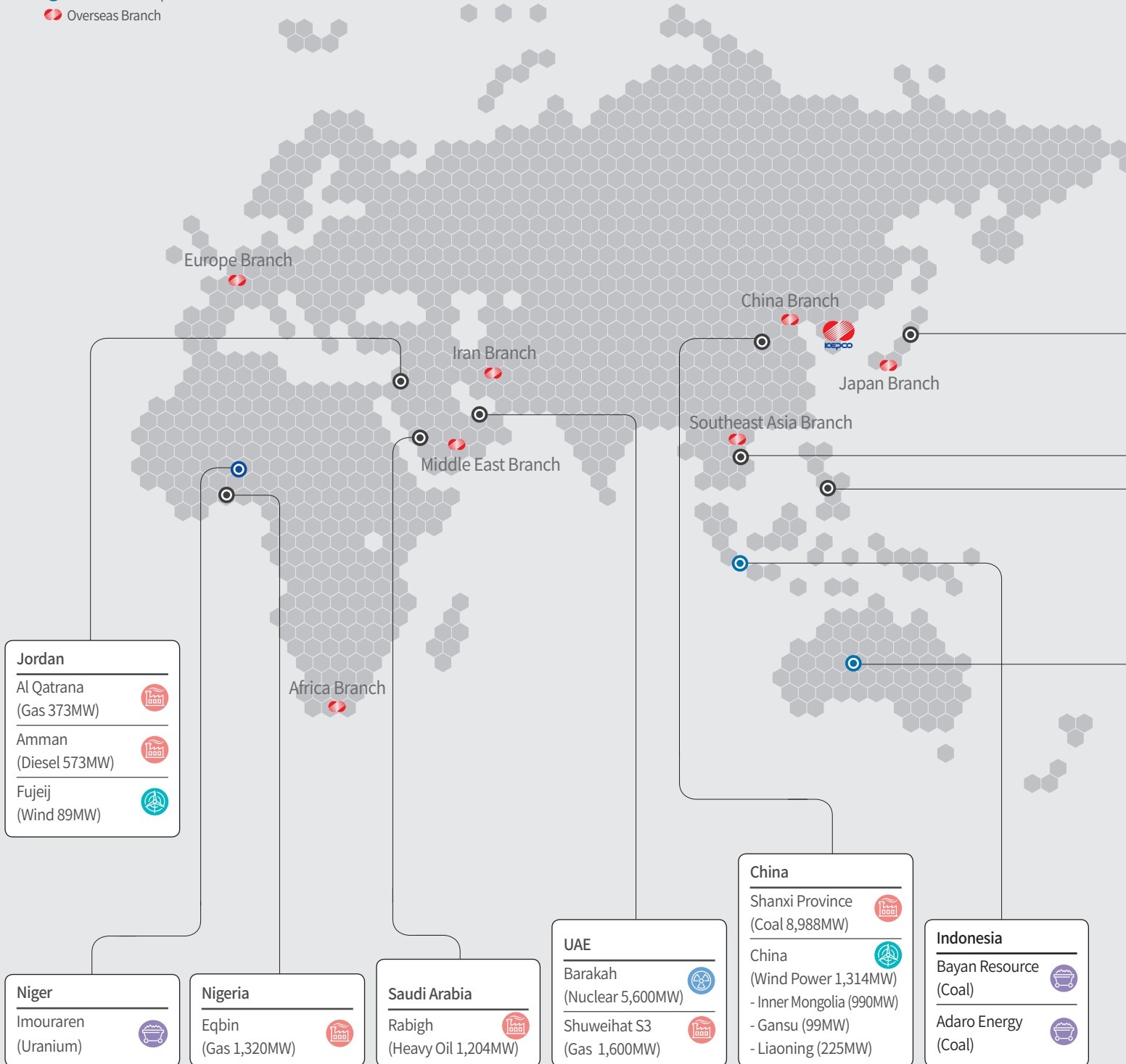
* Smart City: An advanced future and clever city with networked public services using ICT and new energy technology, and use ICT technology while increasing the energy efficiency of the city

** DEWA (Dubai Electricity and Water Authority): State-owned Company in charge of Dubai's electricity and water supply

Global Network

KEPCO vigorously carries out overseas business projects to ensure sustainable growth by overcoming limitations in domestic business and finding new business opportunities. In 2015, the company's overseas sales were KRW 4 trillion and 861.2 billion and achieved 6,738MW (based on shares) in capacity of the overseas generation facilities.

- ⦿ Generation
- ⦿ Resource Development
- ⦿ Overseas Branch



37 Projects
in 22 Countries



Nuclear Power
1 Project in
UAE



Thermal Power
11 Projects in
8 Countries



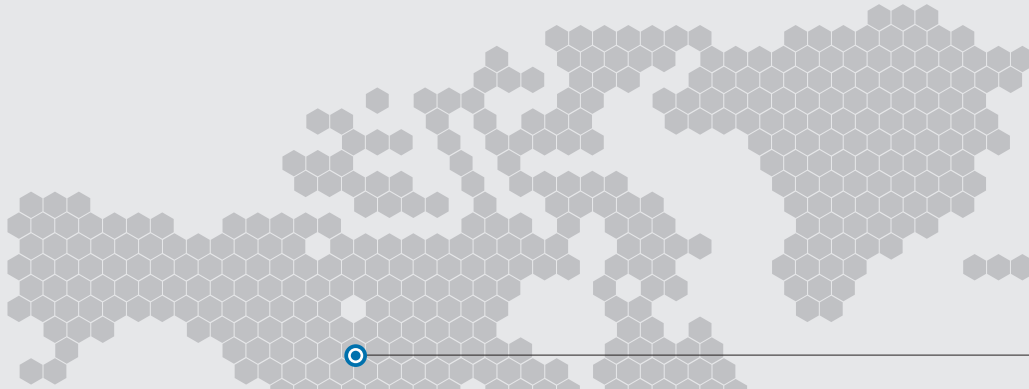
Renewable Energy
3 Projects in
3 Countries



T & D
12 Projects in
11 Countries



Resource Development
10 Projects in
4 Countries



North America Branch

Vietnam

Nghi Son
(Coal 1,200MW)

Australia

Moolaben
(Coal)

Cockatoo
(Coal)

Byrong
(Coal)

Philippines

Ilijan
(Gas 1,200MW)

Cebu
(Coal 200MW)

Naga
(Coal/Heavy Oil
396MW)

Japan

Hokkaido
(Photovoltaic 28MW)

Mexico

Norte II
(Gas 433MW)

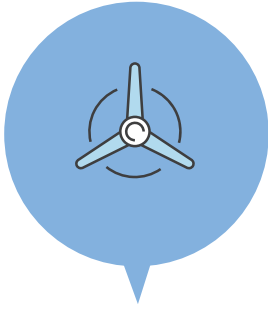
Canada

Denison
(Uranium)

Cree East
(Uranium)

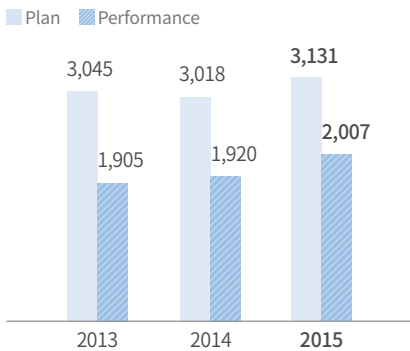
Waterbury
(Uranium)

EFI
(Uranium)



Reinforcing the Technical Competitiveness of the New Growth Engine

Performance for R&D Investment
(Unit : KRW 100 million)



Secure a Future Development Base

KEPCO has carried out persistent challenges to create a future growth engine by converging electricity and ICT technology. For selection and concentration, ten core strategies were chosen and the capabilities of new technological development and commercialization were concentrated. We continue to put our utmost efforts into becoming a global leader in the new energy industry sector through R&D, and creating new values including the development of technology, which are key to leading the way in the future with technology for a new climate regime and new global business model.

Ten Core Strategic Technologies

1	Clean Thermal Power	Supercritical CO ₂ generation & SNG (synthetic natural gas) production technology, etc.
2	Offshore Wind Power	Generate and supply electricity via the economic development of offshore wind resources and connecting high-efficiency, stable systems
3	CCUS (Carbon Capture, Utilization & Storage)	Technology to capture, compress, store and utilize high-purity CO ₂
4	New Transmission Technology	Stable, high-efficiency electricity transmission technology and long-distance HVDC transmission technology as the renewable energy source increases
5	Micro Grid	On-site electricity supply system that generates and consumes electricity through the optimal combination of distributed resources within small areas
6	Superconductivity	Bulk, low-loss and eco-friendly next-generation T&D technology based on superconductivity property
7	Smart Grid	Apply ICT to the existing electrical grid which optimizes energy efficiency and induces the reduction of electricity use
8	ESS (Energy Storage System)	System that enhances energy efficiency by storing and supplying electric energy when necessary
9	ICT Convergence	Create a foothold for a new business in the electric power sector using the latest ICT technology such as IoT, big data and security
10	New Materials for Electricity	Reinforce the safety of the electric power facility, and develop innovative efficiency, increase technology and process new material (self-healing, super capacitor, 3D printing, etc.)

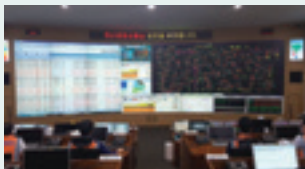
Securing Technical Competitiveness by Increasing Investment in the R&D Sector

KEPCO has expanded its R&D investment to create a new growth engine through the development of high value-added electricity technology and commercialization and to improve the power system safety and facility operating efficiency. As a result, we secured 11 cases of core strategic technologies in 2015, and have achieved 43 cases in total in the core strategic technology field carried out since 2012, and applied 330 cases of industrial property rights.

Major Technology Development in 2015

IGCC-SNG (Integrated Coal Gasification Combined-Cycle Power System)	Offshore Wind Power	ESS (Energy Storage System)	Micro Grid	Smart Grid
<ul style="list-style-type: none"> Developed optimized standard 700,000 Ton SNG process model Developed optimized 500MW connected process model 	<ul style="list-style-type: none"> Developed design technology of offshore wind electric system 	<ul style="list-style-type: none"> Developed bulk ESS frequency tracking control technology Demonstrated operation technique of ESS controller for F/R Developed ESS Biz model for F/R 	<ul style="list-style-type: none"> Demonstrated independent MG operating system Demonstrated active distribution network operating system Developed commercial model of micro grid for remote and small areas 	<ul style="list-style-type: none"> Developed auto control system coordinating FACTS-phase modifying equipment Developed communication & security system between next-gen SCADA ↔ digital substation

SPECIAL



Won CIO 100 Awards

In June 2016, KEPCO won the 'International CIO 100 Awards,' a highly-reputed award along with Edison Awards in the technology innovation sector. IDG (International Data Group), the organizer that is a global research institution established in 1964, conducted a review through a professional review committee consisting of 52 global CIOs, CEOs and professors for seven months to select 100 companies or institutions that have outstanding performances in ICT innovation. In 2016, KEPCO and Samsung were the only Korean companies listed along with global multinational corporations such as GM, AT&T and Intel. Winning the award was the rewarding result of the sustained efforts to improve 20 items including an issue regarding the existing power control system, which is difficult to connect with new technical equipment. In addition, 'the next-generation SCADA system project' will be utilized for condition monitoring, failure analysis and the optimal operation of electric equipment by analyzing big data produced by over 1 million of electric equipment. KEPCO will continue to maintain the highest-level of trust in the electric power supply and electricity quality by repeating technical innovation around the globe.

SPECIAL



Successful 'BIXPO 2015,' World's First International Electric Power Technology Exposition

In October 2015, KEPCO held BIXPO 2015 (Bitgaram International Exposition of Electric Power Technology), a global electric power sector exposition, in Bitgoeul, Gwangju. BIXPO was the world's first international electric power technology exposition hosted by KEPCO in Korea and a place for exchanging new technologies in the electric power sector that attracted about 30,000 visitors including 600 electric power professionals from 40 countries.

Under the theme of 'To the Future of Electric Power Technology,' KEPCO held the first new technology exhibition in the electric power sector, International Invention Fair, International Conference and CTO forum at the same time and that served as an opportunity to enhance the global position of the company and to increase the brand value of participated SMEs with business performances including eight MOUs for technical cooperation and a new business joint cooperation and 54 cases of export consulting worth USD 670 million.

KEPCO has been able to check how the development of Korea's electric power industry is seen at home and abroad by successfully holding consecutive events at the 2013 WEC, 2014 CEPSI and the 2015 BIXPO. This event was an opportunity for KEPCO to understand the issues and trends of the global new energy industry and forecast the future of the energy industry.

SPECIAL



Demonstration of Superconductivity Cable with the World's Largest Transmission Capacity

KEPCO demonstrated the superconductivity cable system that has the world's largest transmission capacity by connecting it to the power system at Geumag Substation in Hallim-eup, Jeju in March 2016. The recently completed electric power facility of the 154kV 600MVA superconductivity cable, the largest transmission capacity in the world, is connected to 1km of a real power system between Geumag substation and Hallim substation and is to be demonstrated for seven months until October 2016.

The superconductivity cable is the next-generation power transmission technology called the 'dream transmission network'. It enables low-voltage, large capacity transmission by increasing the transmission capacity by more than five times while decreasing the transmission loss by 1/10 compared to the common cable, and is applicable for tracks to be replaced due to an overload in a metropolis where track extension is difficult by replacing the existing copper conductor of cable with a superconductor. KEPCO will secure the world's best superconductivity cable technology and be a leader in superconductivity electric equipment technology development once the demonstration is completed.

Current Status of Domestic and Overseas Major Superconductivity Cable Demonstration



(US)

- Demonstrated 138kV/574MVA, 620m (2007, currently the world best, Long Island)



(Germany)

- Demonstrated 10kV/40MVA, 1km (2014, in-service, Ampa City)



(Korea)

- Demonstrated 22.9kV/50MVA, 410m (2011, Icheon Substation)
- Demonstrated DC 80kV/500MVA, 500m (2014, Guemag Substation, Jeju)
- Under demonstration of 154kV/600MVA, 1km cable (2016, Guemag Substation, Jeju)

Superconductivity Application Technology



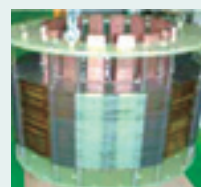
Superconductivity cable



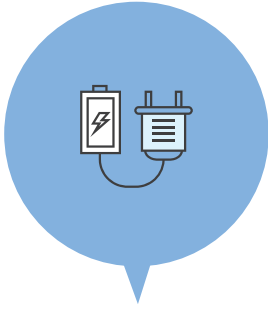
Superconducting rotating machine



Superconducting fault current limiter



Superconducting energy storage device



Next-Generation Technology Business

Smart Grid: Initiative Participation in Demonstration and Dissemination Business

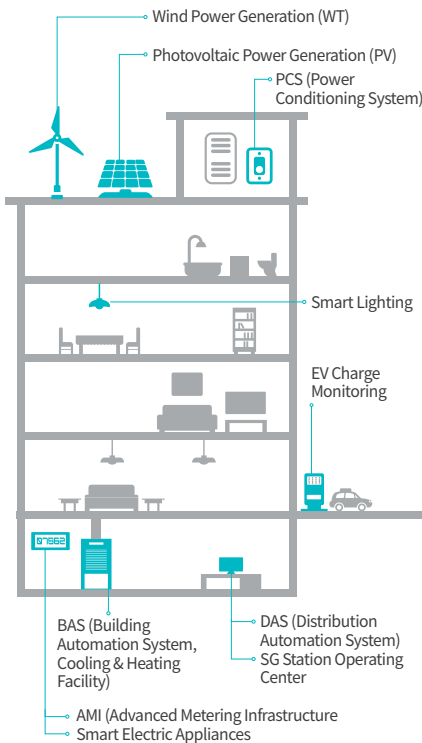
Smart Grid refers to the next-generation smart grid that optimizes energy efficiency by integrating ICT with the electricity grid. As the government aims to establish the world's first nation-based Smart Grid by 2030, KEPCO has successfully completed the Jeju Smart Grid Demonstration Project (2009~2013). Based on the technology and experience of the Jeju demonstration project, KEPCO consortium promotes the nation-based SG Deployment project (scheduled for 2016~2018) as a business model for AMI-based electricity services and energy consulting. Moreover, with the aim of the efficient operation and CO₂ reduction of the power system and new growth engine creation, we dominantly lead the way in the establishment of core infrastructures such as AMI, smart grid station, ESS, charging infrastructure for the electric car and micro grid. Based on these core technologies, KEPCO will lay the groundwork for the dissemination of region-based smart grids by 2020 and establish a nation-based smart grid by 2030 to lead the global smart grid market through the joint overseas expansion with SMEs.

Smart Grid Station: Energy Optimization

KEPCO established the world's first Smart Grid Station that monitors in real-time and efficiently controls renewable energy, ESS, AMI and the charging device for EV (electric vehicle) within the building in 2014. In particular, the Smart Grid Station, developed independently by KEPCO, received an Honorable Mention at the 2nd ISGAN (International Smart Grid Action Network) Awards, an international smart grid technology contest, in recognition of its innovativeness and easy expandability in May 2015, and the Best Smartgrid Project Award from the Global Smart Grid Federation (GSGF), showing that our technology is internationally recognized. As of the end of 2015, the installation of a Smart Grid Station was completed in 100 branch offices of KEPCO across the nation and through these, we have not only contributed to energy saving and GHG reduction but also realized mutual growth with SMEs. Additionally, we are Korea's first participant in the Dubai Smart City pilot project and besides this, are preparing to enter into the overseas new energy business sector including the U.S. and Central and South America.



Smart Grid Station Diagram



AMI (Advanced Metering Infrastructure): Energy Saving Service

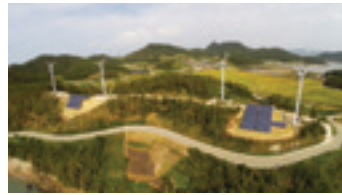
Advanced Metering Infrastructure (AMI) consists of an interactive communication-based digital meter and is the technology that delivers real-time electricity prices and usage information to customers and enables suppliers to accurately forecast demand and manage loads. The AMI project as per the government's master plan for the smart grid is being implemented until 2020 and will provide advanced energy services for all customers in 21.94 million households. Since the development of mid-to-long-term AMI establishment plan in 2013, about 2.5 million households have been completed with AMI installation as of late 2015. There are plans to install the AMI in 2 million households across the country in 2016. With these efforts, KEPCO aims to lead voluntary demand responses and the electricity peak reduction of customers and improve the electricity quality by providing real-time electricity usage and blackout information via the interactive communication network.

Expansion of Electric Vehicle Charging Infrastructure

KEPCO has taken the lead in popularizing electric vehicles by developing quick EV chargers, conducting the pilot project for building charging stations on the expressway, and initiating EV sharing projects. We are implementing a project for building a national charging infrastructure through the establishment of a charging service SPC in August 2015, and plan to lay the foundation for boosting domestic EV and creating future electric demand by installing 3,660 charging stations by 2018.

Micro Grid: Establishment of Eco-friendly Energy Independent Island

KEPCO established the Micro grid system, substituting diesel generators in remote and isolated regions with renewable energy and utilizing the energy storage system (ESS) in Gapagdo, Jeju and Gasado, Jeonnam. With the micro grid system, the company developed the business model for a ‘Carbon Zero Island’ and ‘Energy Independent Island’, which would produce energy without carbon emissions and reduce energy supply expenses. In 2014, based on this development, KEPCO signed an agreement for the joint establishment of a micro grid with Powerstream, Canada for the first time in North America. The company also set a SPC with local government and private enterprises to participate in the Ulleungdo ‘eco-friendly energy-independent Island building project’ in 2015. With the performance of the micro grid demonstration in Jeju and Jeonnam, KEPCO is aiming for a zero-diesel generation by 2020 by composing an optimal energy source mix. Additionally, this business model will be applied to 62 islands under KEPCO’s management.



Micro Grid in Gasado, Jeonnam



Groundbreaking Ceremony of Ulleungdo Eco-friendly Energy-Independent Island

SPECIAL

Canada Micro Grid Completion



In June 2016, KEPCO held a completion ceremony of the Micro Grid in Penetanguishene, Ontario, Canada. The aim of the Canada Micro Grid project was to establish a micro grid for Penetanguishene, a small town with 404 households and 7.2MW installed capacity but without a distribution automation system. With a KEPCO-type micro grid total solution, the city is equipped with a more efficient electric power system by installing a KEPCO-developed micro grid, 500kWh ESS and a Korean automated switch.



Renewable Energy: Efforts to Achieve National Goal

As a representative public energy company, KEPCO has continuously sought measures and developed projects to achieve the national renewable energy goal (11% by 2035). Despite the finite national territory and climate conditions, KEPCO has carried out various renewable energy projects such as a 2.5GW offshore wind power facility in the Southwestern Sea, which is a government-led project, photovoltaic power generation projects in rooftops of schools and the Miryang and Technopolis clean energy supply projects in Daegu to achieve a national GHG reduction goal. KEPCO will also expand the domestic business development and overseas market based on the technology and track record accumulated through the renewable energy business.



ESS in Gyeongsan Substation

Installation of World’s Largest Frequency Regulation ESS

The Energy storage system (ESS) is a new technology that stores electricity for later use which, when needed could be used in diverse areas including demand control, renewable energy expansion, improvement of electricity quality and frequency regulation. In 2013, KEPCO organized an exclusive management team, and established and demonstrated 4MW ESS in Jeju Jocheon Substation for the first time in Korea. We established a phased-plan to build a 500MW ESS (for frequency regulation or F/R) over four years (2014-2017) in 2014. Based on this, we successfully installed Korea’s first 52MW F/R ESS in Seo-Anseong substation and Sin-Youngin substation and they have been in commercial service since July, 2015. An additional 184MW ESS was established including 48MW ESS in Gyeongsan substation in 2015, and KEPCO now possesses and operates the world’s largest 236MW ESS. It is expected to improve the generator output by replacing F/S reserve power, which was handled by the existing generating facility, and to save about KRW 60 billion of electricity purchase expenses annually. In addition, KEPCO expects that fostering the battery-related domestic industry will create new jobs and lay the foundation for entry into the overseas market.

Preserving the Environment



Our Approach

Clean energy is essential for the sustainable life of the next-generation. By recognizing the necessity to share responsibility for the environment, KEP-
CO aims to realize the sustainable energy by increasing energy efficiency with the application of eco-friendly smart technology to the overall value chain of the generation -T&D (transmission & distribution)-sales. In addition, we will set a master plan and actively develop technology for the reduction of GHG emissions.

Our Plan

- Establish a company-wide environment management system and provide regular feedback
- Construct eco-friendly power facilities such as eco-friendly steel towers and the expansion of underground facilities
- Reduce GHG emissions continuously and minimize wastes discharge
- Establish a carbon asset management system



Investment in the Environment

KRW **3.84** trillion





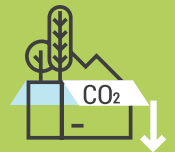
Additional GHG Emission Reduction compared to the 2015 Goal



281,000 tons



50 %



Rate of GHG Emission Reduction compared to Average Emission in 2007~2009



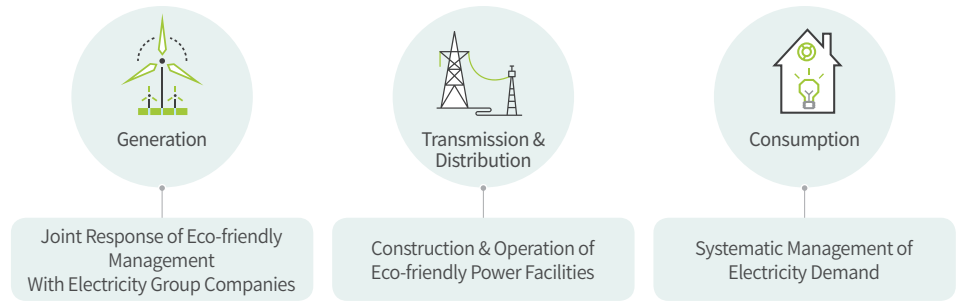
KRW **920.5** billion

RPS Mandatory Implementation Cost





KEPCO pursues eco-friendliness in all areas of the electricity supply value chain and fosters a clean environment with the development of low-carbon, green technology and the improvement of energy efficiency.



Generation Stage

KEPCO and GENCOs strive to build an eco-friendly power supply chain by establishing an organic cooperative system between the generation sector, T&D and sales.

Expenses of GENCOs' Environmental Investment

All six GENCOs' business offices have acquired and maintained the ISO 14001 certification. Expenses related to the environment totaled KRW 531.5 billion including KRW 153 billion for environmental facility investment, KRW 331.4 billion for environmental facility operation, KRW 27.9 billion for waste treatment cost, KRW 6.1 billion for environment-related R&D, KRW 100 million for maintaining the ISO 14001 certification and KRW 13 billion for others.

Construction and Operation of Coexisting Generation Facilities with Local Communities

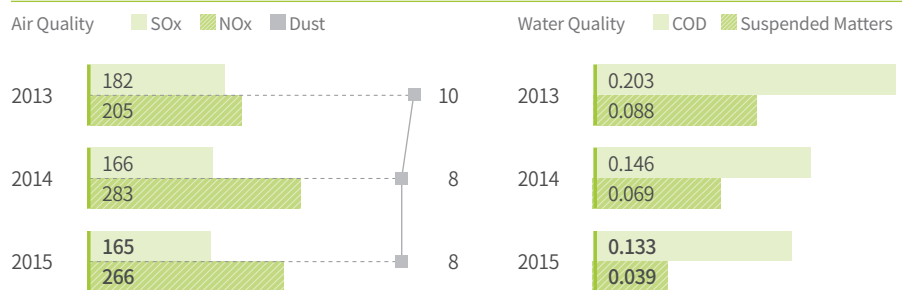
GENCOs conduct an environmental impact assessment on the surrounding the environmental state and traffic of the construction site for new construction or the expansion of plants as well as the post-environmental impact assessment for five years after completion to report the results to the government annually.

Reduction in Pollutant Discharge by Improving the Efficiency of Domestic and Overseas Generation Facilities

The GENCOs have expanded the use of clean energy sources, and installed and operated desulfurization, the De-NOx facility, and dust collection, to reduce SOx, NOx and dust. In addition, comprehensive wastewater treatment facilities are operated to collect wastewater in one place for physical and chemical treatment and the entire desulfurized gypsum produced from coal-fired power plants is recycled for the raw material needed for cement. For the operation of overseas plants, KEPCO strives to comply with the environmental standard in each country and reduce pollutants from plants by improving generation facilities and applying eco-friendly technology. As a result, the Illijan Plant in the Philippines was recognized as the best environmental company by the Chamber of Commerce of the Philippines in 2013. It is planned to not only reduce environmental pollutants, but also enhance operating profits through the plants' efficiency improvement project including the desulfurization facility enhancement of the Saudi Arabia Plant.

Amount of the Discharged GENCOs' Pollutants by Source

(Unit : g/MWh)



*COD : Chemical Oxygen Demand

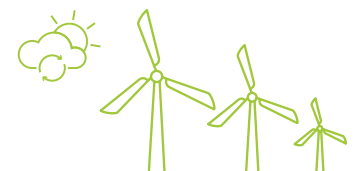
Transmission & Distribution Stage

KEPCO constructs the transmission and distribution facilities necessary for a stable electricity supply in a timely manner and operates them efficiently. For the eco-friendliness of the electricity transmission & distribution stage, we continue to make efforts such as securing objectivity and transparency in the selection of the location of power facilities; conducting environmental impact assessment; expanding eco-friendly power facilities, coexisting with local communities; efforts to reduce T&D loss rate; and protecting the ecosystem and managing electromagnetic fields.

Implementation and Disclosure of the Environmental Impact Assessment for Biodiversity Protection

In order to construct transmission lines and substations, consultation with relevant institutions and environmental impact assessment must be conducted prior to business implementation. KEPCO complies with the Environmental Impact Assessment Act, conducts assessments before the construction of all transmission lines and substations, and discloses the results on the Environmental Impact Assessment Support System (www.eiass.go.kr).

We exclude regions with high biodiversity value. At the stage of the environmental impact assessment, we investigate habitats by focusing on protected species (endangered species), indigenous species, specific species, and species that inhabit the area in groups; predict the likely impact; and prepare measures to reduce the impact. At the construction stage, managers responsible for the content of the consultation are appointed, and the relevant contents are verified and inspected using a post environmental impact assessment. At the stage of the completion of construction, we restore habitats damaged by the construction to the original condition as much as possible through discussions with local governments. We have also reinforced the tasks for the environmental impact assessment by placing a total of four external environmental experts in the headquarters and construction offices and enhance the environmental mindset of executives and employees through various efforts such as publishing guidelines for the environmental impact assessment in T&D facilities and the management manual for the compliance of legal matters, sharing violation cases of environmental regulations and implementing education for the prevention of any recurrences.



Expansion of the Eco-friendly Power Facility Construction

KEPCO continues to expand the construction of eco-friendly power facilities by developing eco-friendly equipment and the construction method with the least impact on the surrounding environment. To this end, we use more aesthetically pleasing tubular steel poles or apply eco-friendly coating on steel towers, and we have developed and operated epoxy mold insulated switches, replacing SF6 gas for preventing the release of GHG. Through efforts to revise laws and regulations on the installation of power facilities, we reduced the depth of underground wiring pipes, shortened the period for road excavation and minimized any inconveniences to pedestrians by mandating to secure space for the installation of ground equipment within buildings. Furthermore, KEPCO has been transforming the aesthetic urban landscape by mandating communication lines to be buried along with distribution lines.



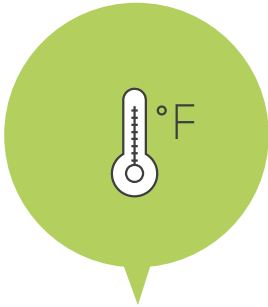
Processing PCBs in Waste Transformers

To meet the national implementation plan of the Stockholm Convention, KEPCO has established and operated a systematic management system for the complete eradication of PCBs (Poly Chlorinated Biphenyls). Waste transformers to be disposed are strictly controlled in accordance with the PCBs management procedure and those with 2 ppm and over in the concentration level of PCBs are processed by companies that specialize in PCBs that processed 260,000 units as of 2015. We will implement a strict safety management for PCBs from removal and storage to analysis, the disposal and sales of transformers and carry out economical and stable processing of PCBs through the constant discovery of new construction technologies.

Sales Stage

Establishment of New Demand Control Strategy based on Stable Electricity Supply and Demand

KEPCO has contributed to stabilizing the electricity supply and demand by systematically and actively managing electricity demand. As the supply and demand have recently stabilized, we are implementing a new demand control strategy and promoting a switch to market-oriented autonomous demand management from the conventional supply and demand measures for emergencies. In accordance with the direction of the government's policy to foster new electric power businesses, we have discovered a new demand control business model using new electric power technology, ESS and promoted the development of a new demand control business model in cooperation with SMEs and the efficiency of demand control. KEPCO also contributes to a reduction in the total national energy amount by expanding investment in an efficiency enhancement project and providing demand control consulting services that induce the reasonable electricity consumption of customers with the provision of electricity information via electricity big data. With the further expansion of the AMI supply, we plan to develop and demonstrate a demand management business model involving the people's participation and expand measures that allow the people to participate in demand control in real time.

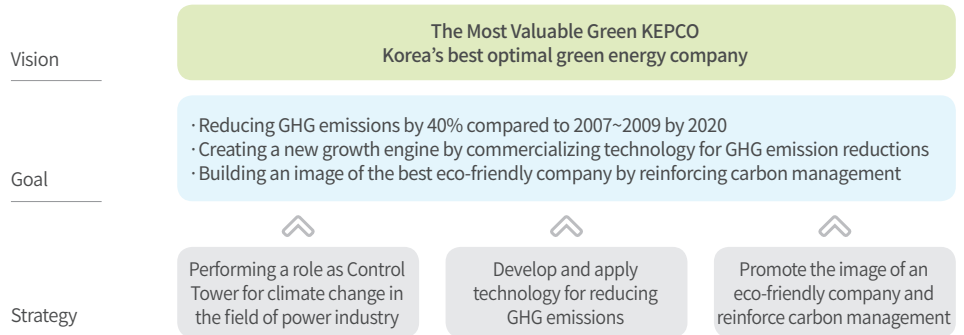


Coping with Climate Change

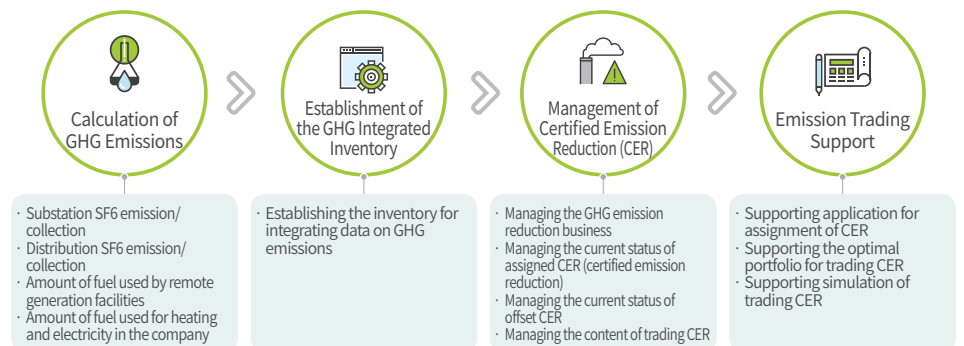
Strategies for Coping with Climate Change

At COP21 in Paris, France, Korea set the national mitigation target by 37% from BAU (business as usual) by 2030. Of the total national GHG emission of 690 million tons (as of the end of 2013), KEPCO and GENCOs take up 1.42 million tons (0.2%) and 220 million tones (32%), respectively, and we will implement activities to bring GHG emissions down to the similar level of the master plan for the reduction of GHG emissions. Under the master plan, KEPCO set a vision of Korea's best optimal green energy company and plans to perform a leading role to achieve the GHG emission reduction target by setting a carbon management system; securing GHG reduction core technologies including CCS; reinforcing R&D cooperation; preoccupying the global climate market.

Master Plan for GHG Emission Reductions



Carbon Asset Management System



Joint Response of KEPCO Group Companies to Climate Change

KEPCO and GENCOs recognize the climate change issue as a crisis but also a new opportunity for the energy industry and launched “COK11 (Conference of KEPCO Group Companies to cope with climate change)” in June 2016. We will satisfy the government’s policy to reduce the national GHG and contribute to achieving the national GHG reduction target as early as possible through the COK11. In addition, KEPCO aims to revitalize the economy through job creation and new business expansion, and to continue expanding the electric power industry environment by pioneering the overseas market in cooperation with SMEs.



Conference of KEPCO Group Companies to Cope with Climate change

Establishment of the Carbon Management System

To analyze the current status of company-wide GHG emissions and manage carbon assets, KEPCO is establishing CAMS (Carbon Asset Management System) and plans to complete the setting of the system by the latter half of 2016 to establish a portfolio for analyzing data on CER (certified emission reduction), monitoring data on GHG on a real-time basis, and managing the optimal CER. We will also prepare the joint measures of the electricity sector in accordance with the implementation of the emission trading system by advancing CAMS and building a system connected with the electricity group companies from 2017.



Reduction of GHG Emissions

Emission Trading System (ETS)

As part of the GHG target management system in 2014, KEPCO was assigned a 40% reduction target compared to the base year (2007~2009) and secured the early reduction of the amount. This amount of reduction can be utilized in supplementing CER, which could be insufficient after the implementation of the Emission Trading System (ETS). The government allocated annual CERs to KEPCO for the period of the first plan, from 2015 to 2017, and the ETS implementation cost is estimated to be about KRW 19.5 billion for the first plan period.

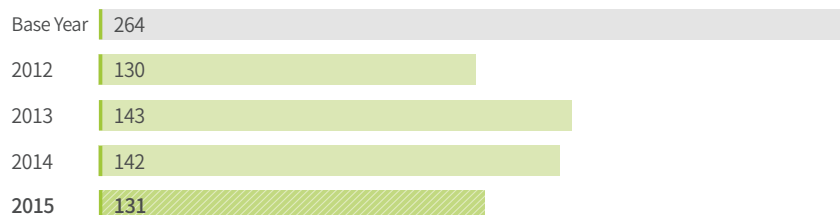
Renewable Portfolio Standard (RPS)

The Renewable Portfolio Standard (RPS), which took effect from 2012, is a system used to supply a certain rate of the total generation amount with renewable energy for GHG emission reduction and the further development of renewable energy. KEPCO made up for KRW 920.5 billion in the total expense of the GENCOs in 2015 due to PRS implementation and the mandatory supply ratio of PRS in 2015 was 3%.

Change in GHG Emission

(Unit : 10,000 tCO₂e)

Base Year (2007~2009)

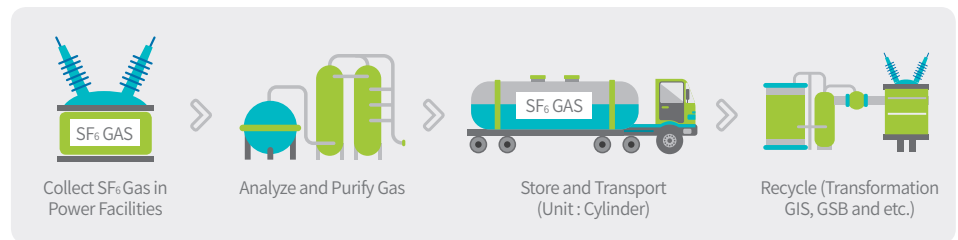


Reinforcement of GHG Reduction Technology

KEPCO strives to reduce GHG emissions to contribute to the national emission reduction initiative, which is to reduce the expected amount of GHG emissions (BAU, Business as Usual) by 30% by 2020, and deal with the ETS which has been in operation since 2015. Through the continual development and application of GHG reduction technologies, we reduced the emissions by 50.4%, in 2015, compared to the average emission amount of 2.64 million tons during the base year (2007~2009). This was achieved with a significant reduction in the GHG emissions by increasing the collection rate of SF₆ gas, which accounts for about 80% of the total GHG emission amount to 97% from 80%.

In 2015, KEPCO reduced about 8000 tons of GHG emissions through the trial application of a technology that recycles SF₆ after its collection and purification and plans to expand the application to all branch offices. Additionally, we will develop an insulation material which could decompose or replace SF₆ to achieve zero SF₆ emissions, in the long term.

Process of SF₆ Gas Collection



Global Certificate for GHG Emission Reduction

Carbon Trust Standard (CTS)

KEPCO's efforts and performance to reduce GHG emissions were recognized by the Korea Productivity Center and Carbon Trust, the UK's non-profit organization established to pursue the shift to a sustainable low-carbon economy, and the company acquired its first CTS (Carbon Trust Standard), a global certificate for carbon management, in 2013. Two years later, we once again passed the review with stricter standards for GHG emission reductions and the assessment for recertification.

Carbon Disclosure Project (CDP)



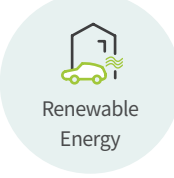
In 2015, KEPCO submitted the open report for CDP climate change information and disclosed its data on carbon emissions and relevant policies to 822 investors around the world. As a result, the company's efforts to enhance transparency in the GHG information and achieve performance in the GHG reduction were recognized and we achieved 2nd place in the energy sector.



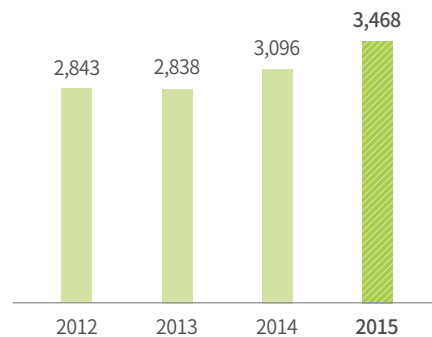
Energy Saving Activities

KEPCO vigorously carries out energy saving activities including saving more energy, making equipment more efficient and expanding the supply of renewable energy. Despite new constructions such as a new HQ building and an increase of manpower, through considerable efforts, KRW 20.8 billion was saved in energy-related budget including charges for electricity and water and automobile expenses compared to the previous year. With the organization of an Energy Saving Committee with the domestic vice president serving as its chairman, we have established a superior system to plan and check company-wide energy-saving efforts for buildings and IT equipment and reinforced the management regarding the performance capabilities of subordinate groups by designating managers in charge of energy conservation at each office building and conducting energy-saving campaigns for the summer and winter. We also operate 'Energy Portal System', which allows the swift and accurate monitoring of the company-wide energy usage, to check the performance frequently and provide feedback on implementation results. KEPCO will take the lead in improving the continuity of energy resources and reducing GHG emissions by continuously carrying out reasonable measures for energy and water use through the performance improvement of buildings and facilities, renewable energy expansion, and energy waste prevention.

Major Energy Saving Activities in 2015

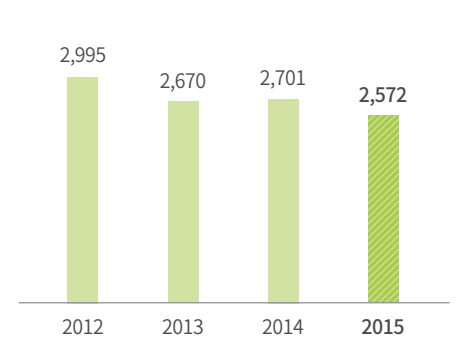
 <p>Energy Saving</p>	<ul style="list-style-type: none"> · Operated the special periods for saving energy during the summer and winter · Set a temperature limit for air conditioning and heating (Over 28°C for air conditioning, below 18°C for heating) · Turn off lights en bloc at lunch and at night (20:00, 23:00) · Designated managers in charge of energy conservation at each office building, conducted activities to eliminate the waste element · Implemented an in-house campaign to encourage energy saving
 <p>Equipment Efficiency</p>	<ul style="list-style-type: none"> · Replaced 20,457 lights with high-efficiency LED lights in office buildings (replacement rate of 62%) · Checked the energy performance of the buildings and promoted improvements in energy efficiency (3 sites) · Disseminated 6,454 units of energy-saving certified products (printers, desktop computers and mini-PCs) · Established the SG station (73 buildings) and integrated management system · Installed 962 units of low-loss transformer and replaced 13,815 units of decrepit transformers
 <p>Renewable Energy</p>	<ul style="list-style-type: none"> · Applied 1,727kW of ground heat equipment to newly constructed buildings (6 sites) · Established carbon management with CAMS · Purchased 331 units of compact cars/eco-friendly cars (purchase rate of 97%) · Promoted to be certified for global carbon management (acquired CTS certification, 2nd place for CDP)

Amount of Energy Use (Unit : TJ)



* Energy Data: electricity, heating fuel and cooking fuel of buildings and electric power supply facilities

Amount of Water Use (Unit : 1,000 tons)



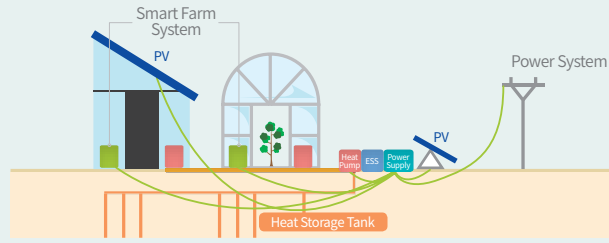
* Water Data: water supply used at buildings (domestic branch office buildings)



SPECIAL

Advanced Farm – A.C.E Farm, Cultivate Agricultural Products with Renewable Energy

KEPCO concluded an MOU with Jeonnam Agricultural Research & Extension Service in June 2016 for a field test of the 'A.C.E Farm' that converges agriculture and energy. 'A.C.E Farm' is a future greenhouse model of farm house installation which enables the supply and control electricity for controlled horticulture farms by utilizing renewable energy including photovoltaic and geothermal heat, ESS and EMS without the use of fossil fuels. It is expected that the A.C.E Farm would not only extend the incomes of the farms through the automation and advancement of farming, as the ageing of farmers and enlargement of equipment progress, but also decrease GHG emissions dramatically by increasing the efficiency of electricity use with renewable energy. This field test will set up a cutting-edge glass house, mushroom growing



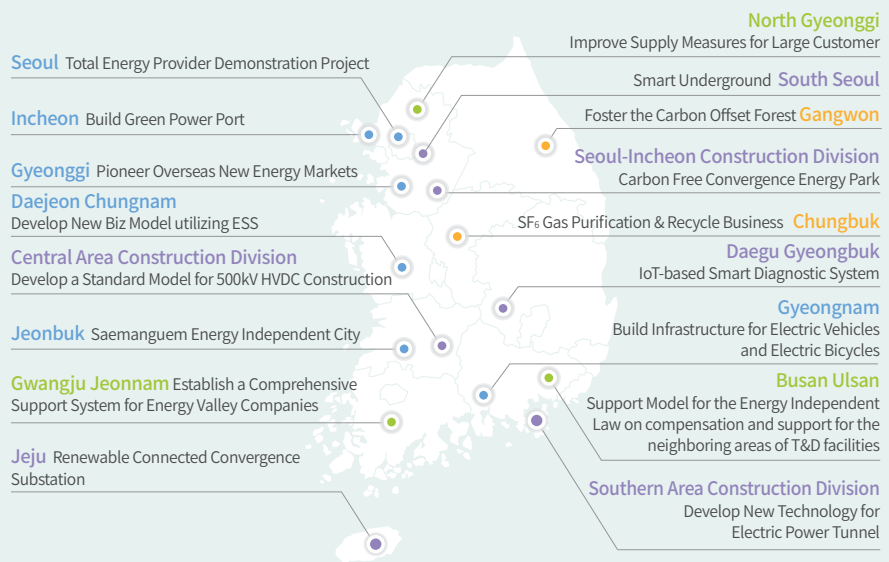
* A·C·E Farm (Agriculture Convergence Energy for Farm)

company and renewable equipment and supply a renewable energy source for air-conditioning and the heating necessary for cultivating special crops on the site of the research center. Based on the results of the field test, the business model will be expanded to other farms.

Implement Tailored, Specialized Regional Business

In order to realize a clean and clear environment, KEPCO implements carbon reduction projects to cope with climate change and to conduct 35 new energy businesses that suit the regional conditions by the unit of the regional headquarters or construction division. Through various projects including a carbon offset forest and Green Power Port, we not only aim to cut carbon emissions but strive to develop new technology and to discover the growth engines.

- New Energy Business
- Coping with Climate Change
- Smart Electricity Grid
- Sharing Economy



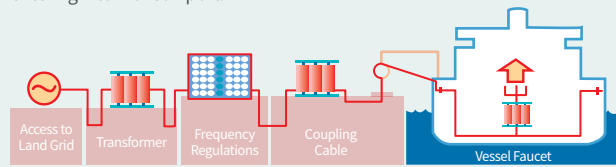
Fostering Carbon Offset Forest

KEPCO carries out diverse projects with the people's participation to cut carbon emissions. In April 2016, the Gangwon division of KEPCO signed an agreement with the Korea Forest Service to promote the 'people's participatory carbon offset forest' project and created the carbon offset forest units 1 and 2 in the Taebaek area. There are plans to plant 25,000 trees in a total of 49 sites by building the carbon offset forest network targeting 32 branch offices nationwide.



Green Power Port (Shore Power)

'Shore Power' is an eco-friendly system that supplies the electricity necessary for anchoring vessels from the land while reducing the contamination of waste oil due to the operation of diesel generators. At present, Shore Power demand tends to increase due to the strengthening of environmental regulations in North America and Europe and it is expected to be introduced to Korea with an increased interest in the environment. The Incheon division of KEPCO signed a MOU with the Korea Energy Agency and Incheon Port Authority to protect the clear blue ocean by providing Shore Power to vessels entering into Incheon port.



Structure of Shore Power

SPECIAL

Stop Turbines for the Flight of Migratory Birds – Wind Power Generation, Fujeij, Jordan

KEPCO won an order for the wind power generation project in Fujeij, Jordan in 2013 and completed the conclusion of the electricity sales contract in 2015. In the meantime, it was verified that the site where the wind power generating facilities would be constructed is adjacent to the main route of migratory birds, hence, KEPCO conducted various research to find measures for protecting the birds. After a basic environment survey through an environmental impact evaluation in 2013, continuous studies were conducted on the migration period of the birds through the entire springtime (early March - mid-May).

The study results on various items including number, flight altitude, time & direction, age and sex of migratory birds in the prearranged-construction area showed that 8,915 birds, which is 46.5% of the total 19,169 birds observed during the field survey, flew at an altitude within the dangerous zone. In addition, analysis results on the risk of bird mortality by wind turbine estimated more than ten birds would be killed annually at ten turbines. The majority of the birds are less-concerned species and not endangered species, and mortality is very small (maximum 0.06%) compared to total population by species. However, the following plans were prepared to minimize the impact to the bird mortality considering the accumulated effect for the construction of many wind farms.

It was decided to adopt a system that would halt the turbines when necessary for the period of the birds' migration by installing an observer led surveillance system. This was introduced to decrease bird mortality by pausing the turbines when a specific number of birds enter into the danger zone. This system has been operated for a wind farm in Portugal in which no bird mortality has been seen for five years even though more than 4,000 birds fly through the area in the autumn season.

Besides, KEPCO plans to minimize the negative impacts on the environment during construction and operation by developing many measures such as altering the migration route of the birds by providing prey outside of the construction site and burying the lines underground from wind power generators to the substation. We strive to make no mistake in harming the preservation of any other eco-friendly elements; animals and plants, while constructing and operating eco-friendly wind farms, and will make continual efforts to conserve the environment such as protecting biological diversity in terms of business development and operation.



Joining Humanity



Our Approach

Due to low growth in the global economy, expectations for corporate social responsibility have increased. KEPCO will become a global company, developing together with stakeholders. We will not only foster the Bitgaram Energy Valley to create shared value with local communities within the area where KEPCO HQ relocated, but also carry out social contribution activities in line with our electricity business, as well as mutual growth with SMEs.

Our Plan

- Attract 500 energy-related companies within the area where HQ relocated by 2020
- Improve the implementation of CSV (Creating Shared Value) businesses that specialize in the electric power industry
- Conduct eyesight recovery operation on 1,004 persons by 2021

Amount of Discounts for Energy Welfare

KRW **262.2** billion





KRW **5.83** trillion

Performance of Purchasing
SME Products



Domestic and Overseas
Beneficiaries of Eyesight
Recovery Operations



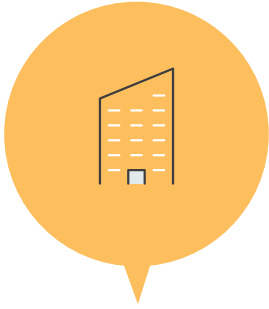
153 persons



133 companies

Number of Companies that
Signed an Agreement for
Energy Valley Investment





Bitgaram Era, A New Leap Forward for the “Bitgaram Energy Valley”



Bitgaram Era and New Challenges

In December 2014, KEPCO moved the headquarters to the joint innovation city in Gwangju, Jeonnam and made the first step towards the successful establishment of a joint development model with local communities called the ‘Bitgaram Energy Valley’ by taking it as an opportunity to open a new future.

Bitgaram Energy Valley

Bitgaram Energy valley refers to a project that KEPCO initiated to make Gwangju/Jeonnam ‘Korea’s electricity capital’. It is to foster a global energy cluster that specializes in the electricity energy industry for joint development with local communities by connecting to the Gwangju/Jeonnam strategic industrial belt, the cultural advanced industrial belt of Gwangju and the renewable energy belt of Mokpo and Muan with Bitgaram Innovation City as the center.



Attract Business/Mutual Growth



Attract Joint Investment



Provide Investment Incentive



SMEs Support Fund



Energy Valley

Investment Expansion/Local Economy Vitalization



EV Charging Infrastructure



Eco-friendly Energy Independence



Expansion of Local Investment



Reinforcement of Vulnerable



Performances

Making a Consensus on Energy Valley and Building a Promotion System

KEPCO signed an MOU to successfully create the Energy Valley between public energy companies, Gwangju Metropolitan Government, Jeollanam-do Provincial Office, and Naju City Government and built a cooperative partnership through an MOU for R&D and HR development with seven local universities in Gwangju/Jeonnam including Chonnam National University. Additionally, the Energy Valley Frontier 77 Seminar was held for the first year of the energy valley creation and 77 companies signed the agreements for investment to gather to successfully create the energy valley.

Attracting Local Investment and R&D

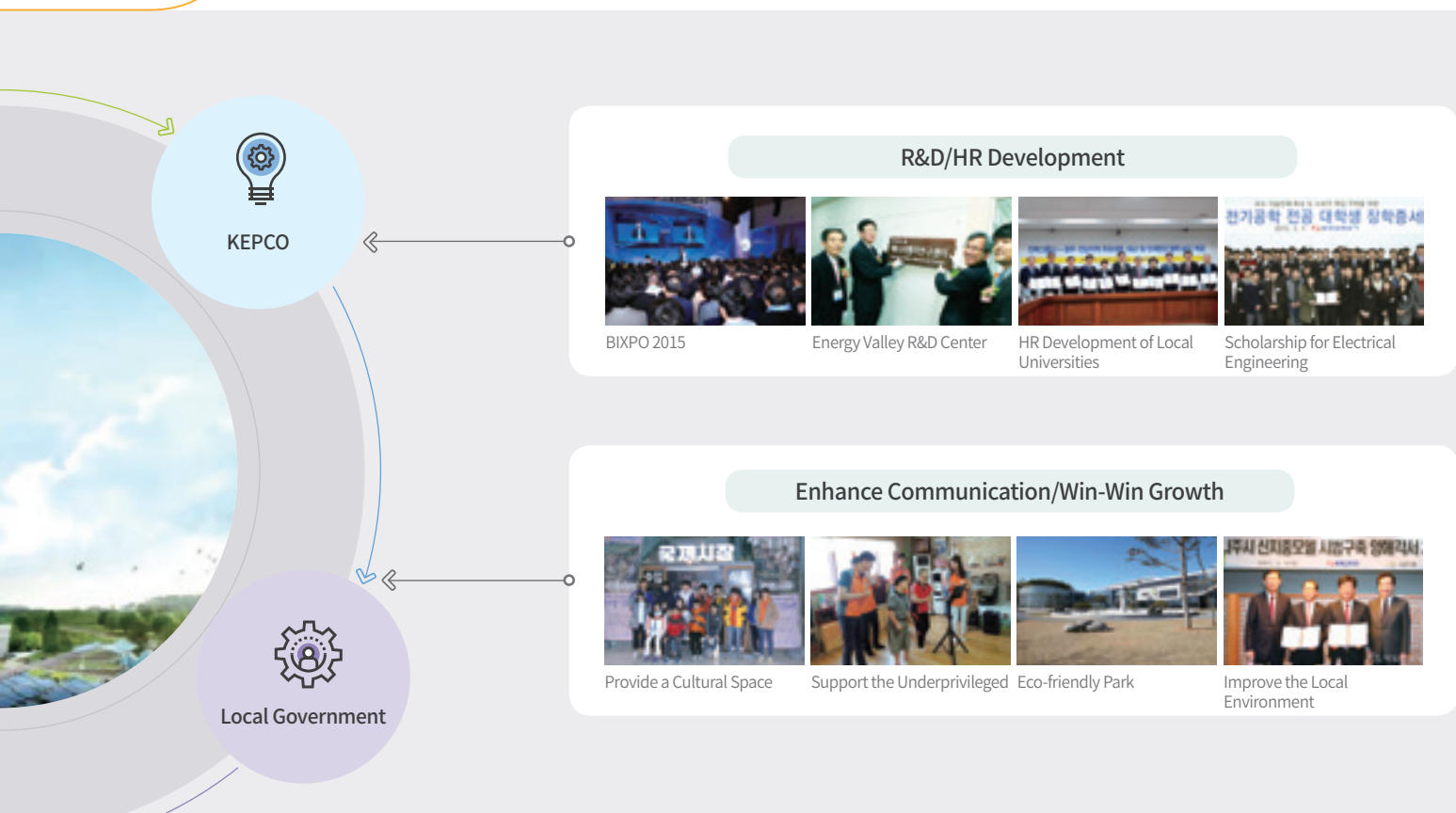
KEPCO has signed the energy valley investment agreements with 133 companies (as of June 2016) since 2015 and a groundbreaking ceremony was held for the relocation of Bosung Power, which is the first company that signed the Bitgaram Energy Valley agreement, to the Naju Industrial Complex in April 2016. Through the industry-academy-research R&D cooperation, customized local R&D investment has also expanded, and the groundwork to attract overseas companies was prepared by signing an MOU between KEPCO-local government-KOTRA in 2016.

Efforts to Improve Culture, Environment and the Quality of Life in Local Communities

With the launch of the project to establish a 'New Underground Model' in the specialized street in Naju, KEPCO completed the detailed design of the first phase section. Moreover, we provide a cultural space for screening films and concerts by opening the company building to the public and carry out events to support the underprivileged class including the provision of scholarship and Home-Coming day for multi-cultural families.



The first company signed the agreement to invest in the Bitgaram Energy Valley



Future Plans

Attracting Companies and Mutual Growth

KEPCO strives to foster an environment in which R&D institutes, the advanced knowledge industry and new businesses can take root more easily by firmly supporting SMEs, midsize businesses and start-ups. As part of these efforts, we donated a 'fund for nurturing SMEs' for financing the companies and an additional donation is being carried out in 2016. The 'Energy Valley Corporate Development Institute,' which is to provide care for relocated businesses and start-ups and support for R&D, and the 'Energy Valley R&D Center,' which is to be built in 100,000 m² will establish new energy technologies, establish a demonstration infrastructure and conduct the performance tests of products developed by companies in the Valley, are also scheduled to be completed by September 2017 and 2020, respectively.

Expansion of Industry-Academy-Research R&D and Development of Human Resources

KEPCO will vigorously support the reinforcing research capabilities of local colleges by intensively investing in the industry-academy-research R&D such as the Energy IT sector in connection with local colleges and held the world's first electric power technology exposition, 'BIXPO 2015'. We are also preparing to operate job fairs and training programs such as the electric power technology camp and overseas voluntary work to foster talented people. There are plans to continue to develop HR development programs and invest KRW 10 billion in industry-academy-research R&D.

Vitalization of the Local Economy by Expanding Energy-Specialized Businesses

To show the "future" to companies, KEPCO plans to lead the future-oriented energy business including the smart city and smart campus, and expand investment in the T&D and IT sectors in Gwangju/Jeonnam. Moreover, in the new energy industry sector, we will provide "future opportunities" to companies to foster the industrial environment from R&D, components and materials to finished-product production and attract participation from many relevant companies. In particular, the community development center of Chonnam National University forecasted that the economic effect of creating the energy valley would largely influence the vitalization of the local economy in Gwangju/Jeonnam, for example, KRW 2.9 trillion on the outcome of production inducement and the creation of roughly 30,000 jobs by 2025. With the innovation city as the center, KEPCO also plans to make Naju into the first smart city of the world by increasing the renewable energy independence and expanding the smart grid.



Bitgaram Energy Valley

Blueprint for the Energy Valley

KEPCO will realize the vision for the Bitgaram Energy Valley to ensure the balanced development of the national territory and vitalize the local economy, as well as the future of KEPCO. We will put extensive efforts into realizing the successful joint development of regions and the creative economy through the challenges we will face. We expect to realize "the best energy valley of the world" earlier through everyone's attention and interest.

Preview of the Energy Valley in 2025

In 2025, Na KEPCO, the general manager of a team at KEPCO HQ, lives with his family in a housing complex built nearby the innovation city. His family who worried about the relocation to the city is now very satisfied with the developing living conditions and educational environment they experience from day to day. Before Mr. Na leaves home for work, he checks the battery life of his EV parked in the garage via the smart home system and moves the EV to the front of the house with an unattended driving system. Then he uploads a message to double-check today's dinner schedule and the location to the home server which is automatically sent to his family members' smartphones. The monitor displays the health condition of the entire family and an alarm recommending him to stroll for more than 1 km. When he arrives at the office after breakfast, he confirms the schedule of the day which includes a meeting with a manager of the largest electricity technology company in the US regarding a trial application of an industrial fuel cell, and in the afternoon, a lecture on the energy valley creation strategy at the energy valley R&D graduate school, jointly established with four universities in metropolitan and local areas and the relevant research institute. The lecture targets a group of people from overseas to observe the industry for the energy valley benchmarking. After work, Mr. Na enjoys a classic concert held at a lake park in the innovation city with his family. He wraps up the busy but worthwhile day by watching the accompanied concert of a world class orchestra and the recently spotlighted Naju orchestra.

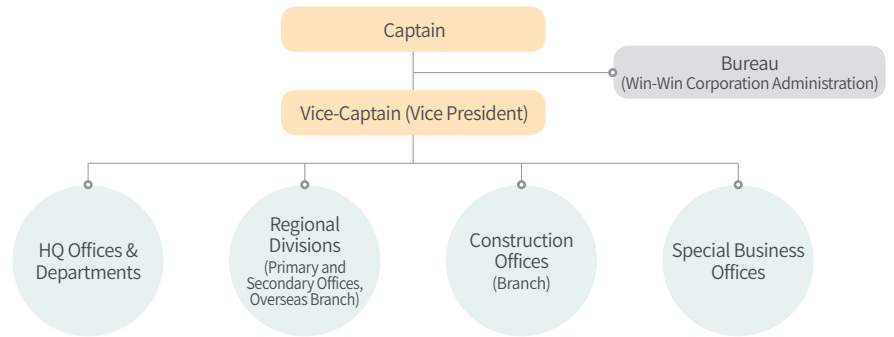


Social Contribution

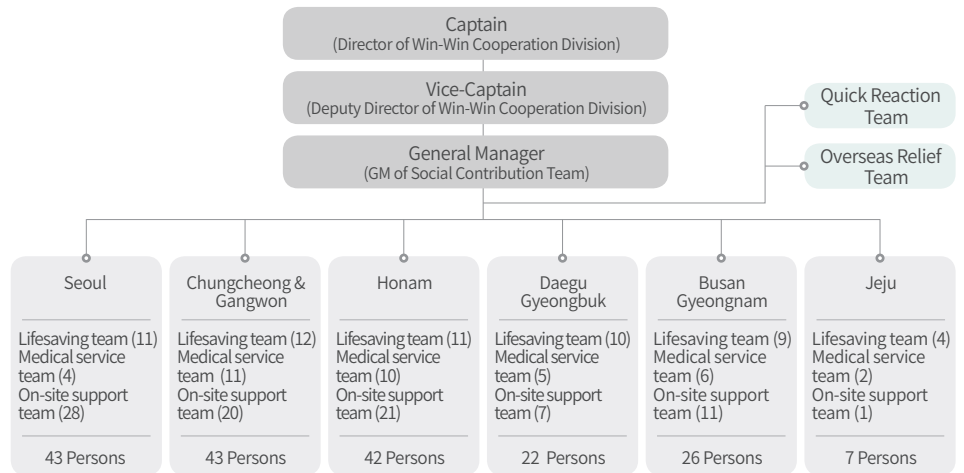
Overview of Social Contribution Activities

KEPCO's social service corps, which was organized in 2004, is the largest size service corps with all 20,000 employees engaged among the public companies. KEPCO conducts specialized social contribution activities such as supporting electricity bills for low-income households, helping patients at risk of losing their eyesight from low-income households to undergo eyesight recovery surgery, and the 119 disaster relief squad. We also strive to share the light and love with society by conducting various social contribution activities such as creating jobs and carrying out global voluntary work through support for social enterprises. KEPCO will continuously operate social contribution programs suitable for global needs and contribute to local communities.

Organization Chart for KEPCO Social Service Corps

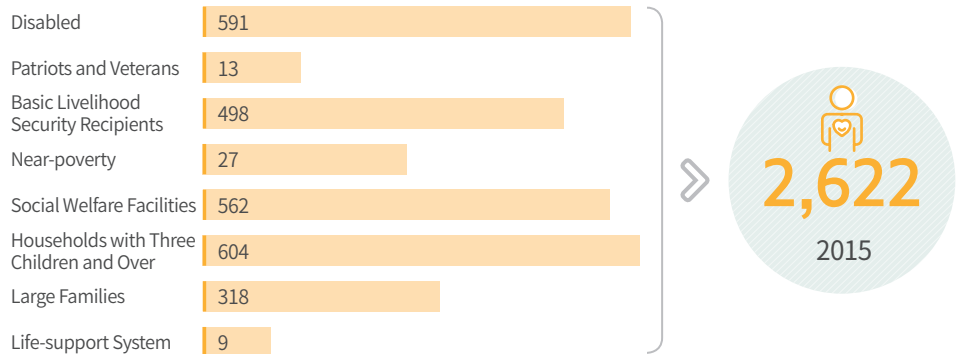


Organization Chart for 119 Disaster Relief Squad



Performance of the Welfare Discount for Electricity Bills

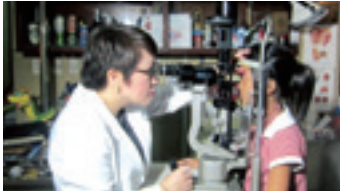
(Unit : KRW 100 million)



Social Contribution Activities that Specialize in the Electricity Business

Energy Welfare Discount

KEPCO provided welfare discounts for electricity bills worth KRW 262.3 billion in 2015 for basic livelihood security recipients and social welfare facilities. As we carried out a project for sharing energy with love to support low-income households who have difficulty paying electricity bills, we helped 19,252 households with KRW 2.57 billion from 2003 to 2015. Additionally, KEPCO has newly launched a system for discounting 20% in electricity bills for facilities that help protect the female victims of domestic violence and expanded the 'target of the exemption of paying a deposit' to lift the economic burden in using electricity by tenants.



Eye Love Project

KEPCO has helped underprivileged people by supporting eyesight recovery surgeries for the visually impaired every year at home and abroad. By 2015, we have supported eyesight recovery operations for 602 persons in total, including 524 in Korea and 78 in foreign countries. We will continue to increase the beneficiaries and support a total of 1,004 persons in total by 2021 with the eyesight recovery surgery.

KEPCO 119 Disaster Relief Squad

KEPCO founded 119 Disaster Relief Squad consisting of 232 experts in lifesaving and emergency medical services in October 2010 for the first time among domestic public enterprises and has conducted emergency relief activities for various disasters and catastrophes. The squad provided medical services for national events (11 times) including the 2015 Gwangju Universiade, Love Electricity Marathon tournament and BIXPO and an annual total of 7,363 persons participated 42 times to join disaster relief activities and medical services up to date.

Social Contribution Activities for Job Creation

Support Social Enterprises and Cooperatives

KEPCO creates jobs for the vulnerable through the vitalization of social enterprises and cooperatives, and assisted 30 companies in total with KRW 1.35 billion from 2012 to 2015.

Hope Rainbow Project

KEPCO's Hope Rainbow Project provides management funds for low-income, self-employed business operators and social enterprises by collecting small amounts under KRW 1,000 taken from the wages of all executives and employees every month. In 2012-2015, KRW 560 million was offered to 26 companies through this project. We also played a big role in fostering a social economy environment by holding the 'Idea contest for vitalizing the social economy' and will carry out various projects to create high-quality jobs.



Tailored Social Contribution Activities

Sharing the Love of Labor and Joint Management

KEPCO implements joint labor-management voluntary work year-round, especially for the national holidays and year-end & New Years, in which all executives and employees perform voluntary work by visiting social welfare facilities. The company also contributes to improve the quality of life of neighbors with impaired physical mobility by installing wireless power switches to turn the lights on & off while lying down.



Talent Donation

KEPCO employees share various talents by establishing a talent donation pool in 3,655 fields such as language and musical instruments. In 2015, a total of 2,234 employees participated, and more employees are expected to donate their talents.

Support Children and Youths

KEPCO posts photos of missing children on electricity bill statements in the hope of finding missing children and persistently conducts a campaign to prevent children from going missing. From 2004 to 2015, we have pinned a total of 1,768,387 name tags and shared the joy of having 109 missing children returned to their homes. Besides this, we set up a sisterhood relationship with 287 regional children centers nationwide to carry out voluntary work such as academic instructions, cultural experience, and supporting meals. KEPCO helps young people in disadvantaged households make their dreams come true by volunteering as mentors for them.



SPECIAL



Crowd Funding

KEPCO vigorously implements the national project, 'vitalization of cooperatives and social enterprises,' by carrying out a project assisting start-ups and management improvement for social economic vitalization. Particularly in 2015, the crowd funding technique was utilized with the SNS media and the internet to conduct the business of financing start-ups (management improvement) and a fund of KRW 120 million was raised by 1,504 attentive investors.

On this, KEPCO offered help to companies who experience difficulties in financing the initial capital by loaning three times the amount, at most, for companies (14 businesses) that raised 80% or more of their target amount. Additionally, KEPCO conducted an audition regarding citizens' investment for crowd funding companies to provide objective evaluations and feedback from the general public on their business items. Through systematic consulting with four-stages (financing, training, mentoring and PR), we contributed towards the vitalization of start-ups so that they could lay bases to stabilize the businesses.

Supporting Status in 2015

Amount of Funding	Funding Method	Subject to Funding	Business Type
KRW 120 million	» Fund Raising	» 29 Companies	» Social Enterprise (12), Cooperatives (7), Social Venture (10)
KRW 300 million	» Company Support	» 14 Companies	» Social Enterprise (7), Cooperatives (3), Social Venture (4)

Home Country Visiting Support Project for Multicultural Families

“KEPCO helped me to understand my mother’s home country.”

KEPCO carries out customized social contribution activities by considering the characteristics of the local community members. In 2015, ‘Home-Coming Day with KEPCO’ was held for 15 multicultural families in Naju and South Gwangju where KEPCO HQ relocated, and through this event, we assisted 51 people to visit their homeland, the Philippines.

Under the theme of ‘sharing happiness and growing dreams,’ the event consisted of the home country visit for seven nights and eight days, special lecture, university visit and volunteer work and the reported satisfaction level was very high. In particular, it was not just a home country visit but also an opportunity to motivate and inspire the members of multicultural families so that they could be a help to someone.

Mr. Huh Jungmyeong, who is a student of Yeongsan Middle School in Naju and accompanied his mother, Marizel on the trip to the Philippines said, “I was very happy to visit my mother’s home country and meet her family members for the first time thanks to this home-coming event by KEPCO and I want to be a person who strives for friendly relations between the two countries and development by learning the Tagalog language, history and culture of the Philippines” and emphasized that the social contribution activities of KEPCO for multicultural families contributed to raising the pride in being a member of the local community.

Through these efforts, KEPCO plays an important role not only to help children from multicultural families find their identities and self-confidence but also to enhance the understanding of the home country of their mothers and cultivate the will to become a mediator between the two nations.

Meanwhile, KEPCO has enthusiastically fulfilled our social responsibilities as a global utility company by conducting projects such as building a primary school, developing the environment and educational service in the area of the Ilijan Power Plant, the Philippines from 2013 as well as the homecoming event.



Assisted Visit to the Philippines for Multicultural Families in Naju, South Gwangju

Interview

Lee, Hyunseok, KEPCO College Student Overseas Volunteer Group

“Light Up a Mountain Village in Vietnam by Sharing.”

Q Please, briefly introduce the KEPCO College Student Overseas Volunteer Group.

A KEPCO operates an overseas volunteer group consisting of college students that brightens and eliminates the darkness by supplying electric power facilities in areas having difficulties in supplying electricity such as Vietnam, the Philippines, Cambodia and Indonesia.

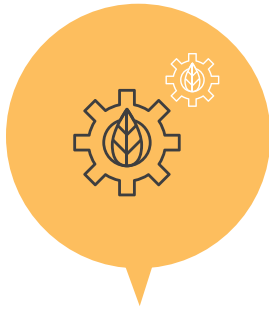
Q Please elaborate upon the activities performed at Hua tat village, Vietnam by the volunteer group.

A Hua tat village is a small rural village near Laos’s border. The area is not yet modern, civilized and lacks the amount of electricity supply with the insufficient establishment of electricity facilities. For this reason, we installed sunlight streetlights for about 200m from the access road of the village to the culture center as well as the photovoltaic power generator at the school.

Q Please, share your thoughts on the differentiated identity of the KEPCO College Volunteer Group and the future action plans of the group.

A We carry out strategic social contribution activities that can maximize the identity of KEPCO and vigorously utilize the characteristics of the business as a strategy for our volunteer work beyond the simple provision of labor. As mentioned before, the installation of the photovoltaic electricity equipment would be an example. The KEPCO College Volunteer Group will further carry out activities to shed warm light in countries with a short supply of electricity.

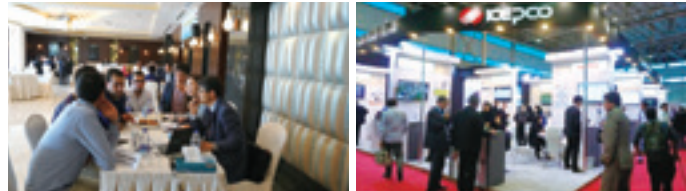




Mutual Growth with SMEs

Fostering Robust SMEs by Enhancing Capabilities for Technology Innovation

To secure the management stability of SMEs, KEPCO implements projects to enhance their technical capabilities. We provide KRW 6 billion a year to conduct mutual growth projects such as cooperative R&D with SMEs, and purchase the excellent products of the cooperative R&D for use. Moreover, support in expenses for overseas standard authentication and domestic and overseas official qualification tests will help improve the quality competitiveness of SMEs. KEPCO also provides assistance in innovation consulting and building the smart plants of partners through the active participation in the government-led industrial innovation movement to reinforce the productivities of SMEs.



Held an Event Promoting Exports and Participated Jointly with SMEs in a Major Overseas Exhibition

Amount of Cooperative R&D Products Purchased
KRW 55 billion

Mutual Growth Implementation Strategy Structure

Implementation Strategy

‘Establish a Mutual Growth Platform for Market Creation as an Electric Power Business Leader’

Index

Create a Mutual Growth Environment

Reinforce Support for SMEs to Find Overseas Markets

Settle a Transparent Trading Culture

Promoting SMEs' Exports by Reinforcing Support for Overseas Sales Channels

In order to increase competitiveness in exports by enhancing the global marketing capabilities of SMEs, which lack human resources specialized in overseas marketing, KEPCO holds events for promoting exports that utilize the global brand power of KEPCO by organizing an overseas pioneering group with SMEs, and participates in overseas exhibitions. We held 46 events in total for promoting exports with 669 SMEs targeting 72 countries from 2010 to 2015, and led SMEs' exports worth USD 315.84 million in 2015 alone. The amount of SMEs' exports also reached USD 21.26 million in total by entering the overseas market together with private construction companies and equipment companies for the large overseas projects of KEPCO. In addition, we have supported SMEs' exports with outstanding export capabilities in the electric power sector by adopting a system for the export guarantee brand of partners for the first time among domestic public enterprises since 2013. Those who want to join the export guarantee brand project undergo an assessment on the capabilities such as business credibility, competitiveness in exports and product satisfaction via a contest. We expand and operate the range of the target sector not only to the T&D but also generation, components and the new energy industry. The 'Local branch set up project' is conducted in cooperation with KOTRA to offer assistance in the local marketing of SMEs' products and seven companies with outstanding marketability are operating in the Philippines by benefiting from this project. The target region of the project will be expanded to the Central and South America in 2016. Besides this, an educational course that specializes in SMEs' exports is offered free of charge for 60 executives and the employees of SMEs' each year.



Bitgaram Mutual Growth Festival

Vitalizing the Business Ecosystem by Creating a Mutual Growth Culture

Starting with the first mutual growth fair by a public company in 2013, a contest for the commercialization of electric power technology was held with 131 SME participants in 2014. The 'Bitgaram Mutual Growth Festival' was held with 185 company participants in the Bitgaram innovation city, where KEPCO HQ moved, in 2015 and raised the meaning of mutual growth with SMEs' and local communities by leading the conclusions of contracts worth USD 6.7 million. Furthermore, KEPCO initiated the construction of the 'Energy Valley Corporate Development Center' for joint R&D with energy section SMEs' stationed in the Bitgaram innovation city and spurs creation of the energy valley.



Caring People



Our Approach

'People' are the key for a competitive company. With open employment focusing more on capabilities than the personal qualification and expansion of education opportunities, KEPCO will raise the competitiveness of the global KEPCO brand. By creating the HWP (Happy Work Place) with respect and consideration, we will create a workplace that employees enjoy and which builds up the irreplaceable precious value of 'human beings'.

Our Plan

- Establish a safety and health management system and reinforce on-site safety management
- Capability-oriented open employment and enhance competency-based customized HR development
- Increase the fairness of MBO appraisals and establish the performance-oriented wage system
- Build win-win labor-management relations and adopt a system for work-life balance
- Implement people-oriented management focusing on the human rights of stakeholders



Reduction Rate of Safety Accidents

34.6 %





25%

Ratio of Female Recruitment



2,117 persons

Number of New Recruitments



Education Hours per Employee

92.7 hours





Open Employment

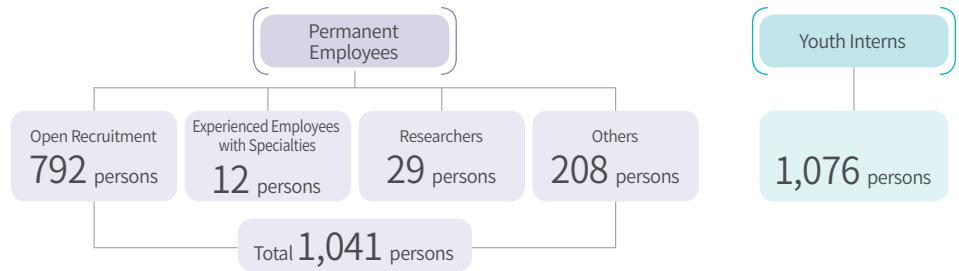


Expansion of Open Employment

KEPCO has strived to expand the size of recruitment and diversify the constitution of human resources to secure the best and talented people, who are the source of corporate competitiveness and the basic condition for sustainable growth, and fulfill our social responsibility as Korea's representative public company. We will secure new personnel to realize a young and flexible organization and create sustainable growth engines.

Largest Recruitment of New Employees among Public Companies

(As of 2015)



We reinforce customized recruitment through various processes such as recruiting experienced workers in professional areas and excellent R&D personnel from prestigious universities at home and abroad beyond the massive open recruitments of the past. In addition, other recruiting processes considering the environmental changes and social needs are operated such as youth internships (high school graduates and college graduates) and local talent recruitment to expand the employment opportunities for talented people in diverse classes. With a massive youth internship (1,076 interns, 2015), we offered an opportunity to enhance job competency for young adults and achieved the substantial performances of job creation for young adults by exceeding the government goal (20% of new recruitment) through a switch in the employment status of 595 youth interns to a permanent role (57% of newly recruited employees). We also lead the implementation of 'open employment' by setting up the process for recruiting the best and talented people based on job competency without discrimination on academic background, age and gender. KEPCO will take the lead in creating a win-win environment by expanding the job creation of various social members including socially valuable ones such as high school graduates, youth interns and female talent.

Operating Performance of Youth Internship

(As of 2015, Unit : Person)



Switch Rate

(Unit : %)

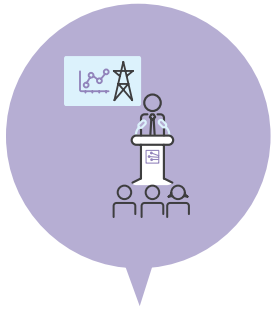


SPECIAL



Hopes for Young Adults! 'KEPCO Employment Steppingstone Program'

KEPCO began the operation of 'KEPCO Employment Steppingstone Program' from 2016 to create jobs for young adults and reinforce SMEs' competitiveness. The 'KEPCO Employment Steppingstone Program' is to provide the opportunities for the improvement of job competency and employment for job seekers and of recruiting the best and talented people for partners by utilizing an excellent training infrastructure for job training and adding the field internship experiences of the partner companies. In order to strengthen the employment connection, we conducted a preliminary demand survey on the number of recruitments and wanted job training that targeted 29 outstanding partner SMEs including the main partners and companies that agree on the energy valley investment. Last May 2016, 76 people were selected as the participants of the first steppingstone program. Starting with the first program, KEPCO plans to offer the opportunities of two-month job training and three-month internship for a total of 600 young job seekers; 300 per year, which is the largest scale in the public sector. KEPCO will lead in win-win employment by providing the participants with training allowances during the training period, employment subsidies when completing the training and certificates at the final completion as well as opportunities for permanent employment at the partner companies.



Fostering Talent

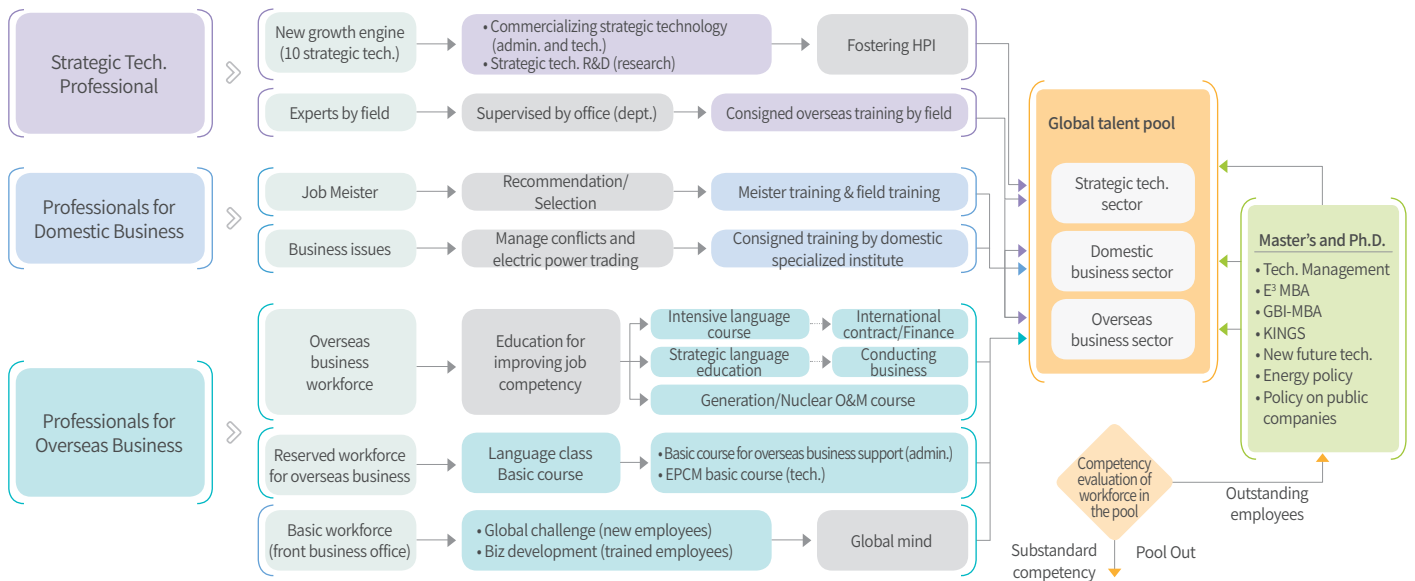
System for Fostering Global Future Talent

To secure a sustainable competitive advantage, KEPCO implements specialized education programs for nurturing professionals in growing businesses. We develop and operate educational courses customized for strategic technology as well as the overseas and domestic businesses to foster professionals in the corresponding sector, while implementing strategic HR management to secure a connection for performances between education and the field by establishing a 'global future talent pool,' which is up to 10% of total employees.

Nurturing Professionals in Strategic Technology

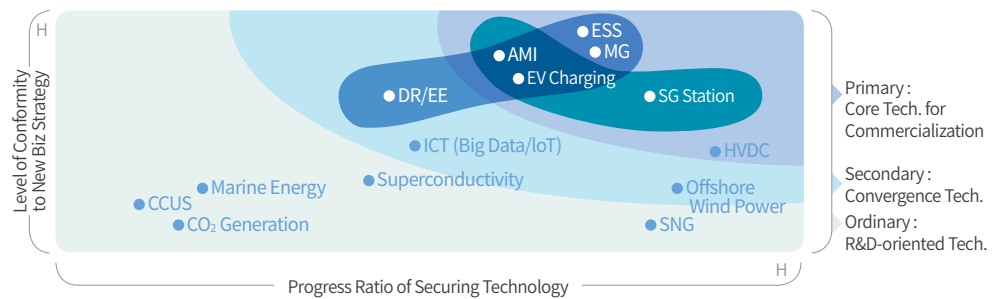
KEPCO determined ten strategic technologies for a future growth engine to secure the predominance in the future energy business. In order to commercialize it early on, KEPCO is nurturing professionals. In 2015, 268 people were selected for this and are under training, and there are plans to train an additional 350 people in 2016. KEPCO will carry out continual efforts to foster talent with expertise by positioning itself with strategic technology, and through securing a workforce and conducting training.

Global Future Talent Fostering System



Strategic Technology Positioning

● Strategic Tech. for New Market Design ● Strategic Tech. for Energy Valley Creation

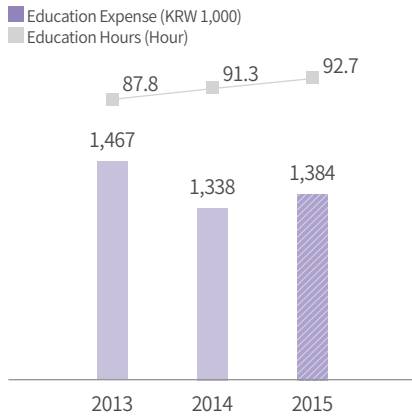


Fostering Professionals for Overseas Business

To enhance the capabilities for overseas business, KEPCO carries out continual professional education through overseas business activity including an MBA course that specializes in overseas business and a strategic language focused course. Meanwhile, the expertise of personnel carrying out the nuclear power plant project in the UAE are particularly reinforced, and a mid-to-long-term master plan for fostering personnel in the nuclear sector has been set and operated for winning new nuclear power plant orders.



Education Hours & Expense per Employee



Global challenge by junior employees

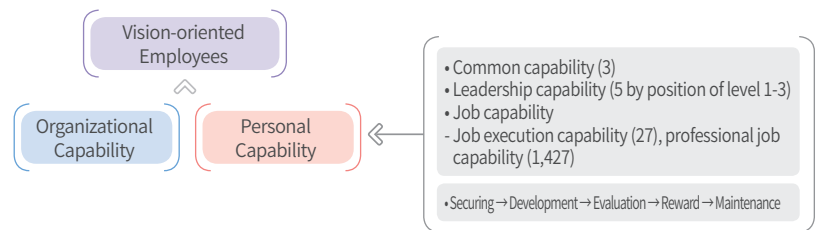
Expansion of Education & Training Opportunities

KEPCO develops and operates training programs that correspond to the needs for the capability development of the members. We encourage the self-enrichment of our members by introducing a target system for training completion by individuals and constantly expand educational opportunities in connection with the internal performance assessment by the MBO (Management by Objectives) and organizational unit.

Tailored Competency Reinforcement Education

KEPCO has established and operated the KEPCO competency model to run customized educational courses by the level of individual competency. Based on the company's vision, growth strategy and internal and external environment analysis, systematic educational programs are provided for developing the basic capabilities of common/leadership/jobs for KEPCO employees.

KEPCO Capability Model System

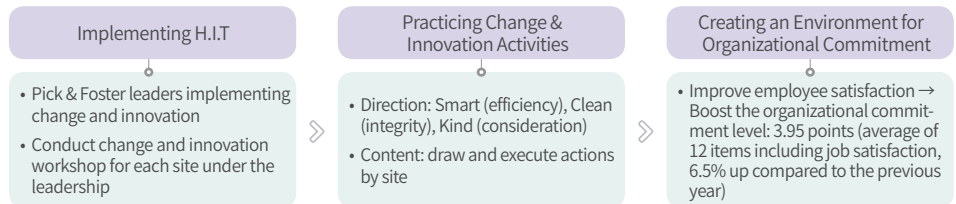


Systemic Operation of Education Courses

Category	Program
Reinforcing On-site Education	Fostering Meisters (experts) by job
Enhancing Global Capability	Intensive courses for strategic languages (interpretation & translation graduate school), phone/internet language classes
Cultivating Passion in New Employees	Operate the global challenge course
Relating Industry-Academy-Research	Diploma course specialized in the electricity business - MBA specialized in overseas business, diploma course for tech. management convergence, MBA that specializes in the energy electricity sector, master's course for electric energy, master's course for KINGS nuclear power and master's course for public company policy and etc.
Reinforcing Creative Innovation Capability	Business leader forum, liberal arts academy, book-learning
Self-enrichment & Improving Job Competency	Job training at the HR development center, e-learning, blended learning vitalization

Core Value Internalization Training

Core value internalization training of KEPCO (or H.I.T, Happy Innovation Training) is used to improve employees' engagement in their jobs via voluntary participation and communication. Following the phased-change and innovation training taken for three years (2012~2014), a customized program focusing on 'execution' was conducted in 2015. To this end, we have drawn and executed various challenges to realize the values of work efficiency and integrity by fostering leaders implementing change and innovation and holding communication workshops by business site.



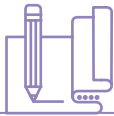
※ H.I.T (Happy Innovation Training): a program to practice change and innovation. Realize a Happy Work Place, increase job-engagement and build an organization with a high performance rate through the participation and communication of all employees

Support Lifelong Education

KEPCO helps soon-to-be retirees to adapt to retirement successfully by implementing outplacement education. We enhance the accessibility and efficiency for trainees through on/offline blended learning for detailed subjects such as life design, starting businesses and reemployment, and placement and provide a customized retirement support service by assigning a consultant for supporting retirement for each individual.



Happy Work Place (HWP)



Realizing HWP with Communication and Harmony

A happy workplace with a work-life balance improves a company's productivity. KEPCO realizes a people-oriented 'Happy Work Place' through Family Day, which encourages employees to leave their offices on time without over time, and 'Fathers' Camp' which is to promote communication between family members. To improve the communication of employees at branch offices, various programs were offered to support an energetic work life such as the 'Bitgaram communication visit' program in conjunction with a visit to the headquarters (May-June 2015), and the 'Healing Camp' for healing and recharging the mind and body of our employees. Moreover, KEPCO implements a reasonable welfare policy that meets management conditions to improve the work satisfaction of the employees and strives to satisfy their welfare needs through a service in cooperation with outside specialized companies.

Win-Win Labor and Management Culture

KEPCO operates the Union Shop system, under an agreement between the labor and management, which grants the qualification to join the labor union upon joining the company, and guarantees legitimate union activities in accordance with the relevant union act, collective arrangement and agreement between the union and management. As of late 2015, the number and rate of union members are 15,155 and 74.5%, respectively. Through the amicable communication and active sharing of management issues, KEPCO improves business performances and builds the cooperative relations between the labor and management. In 2015 alone, 1,012 labor-management meetings at the headquarters and business sites and 439 current management presentations were held to discuss various management issues. Furthermore, through the joint efforts of the labor and management to implement government policies, we took the initiative to carry out the government's recommendation on the salary peak system and reinforced public trust further as a representative public company in Korea.



Joint Ping-Pong Tournament of Labor-Management of KEPCO



Sports Day of One Mind Labor-Management of KEPCO



SPECIAL



Grand Prize Winner of 100 Best Companies to Work for in Korea

KEPCO won the grand prize in the '100 Best Companies to Work for in Korea' hosted by GWP Korea in October 2015. '100 Great Work Places (GWP)' utilizes the 'GWP Trust Index'*(Trust management index, which is a GWP standard assessment tool that is commonly applied to 46 countries worldwide in the EU, Central and South America and Asia, as well as 'FORTUNE US 100 Companies', to assess the trust, pride and fun by indexing each category.

KEPCO won the grand prize by scoring 91 points in the trust index of GPTW (Great Place to Work) in the '100 Best Companies to Work for in Korea' in 2015. This could be a barometer showing that we are successful in realizing the HWP in organizational culture, employee satisfaction and work environment. KEPCO will make efforts to foster a pleasant business culture based on trust, respect and consideration by striving persistently to become KEPCO with the people's trust and the world's best GWP.

* GWP Trust Index: a systemic concept of the best work place where members of an organization Trust their bosses and executives, have Pride in their work, and have Fun working with colleges. The assessment is conducted with the same criteria throughout the world.

Gender Equality and a Family-friendly Culture

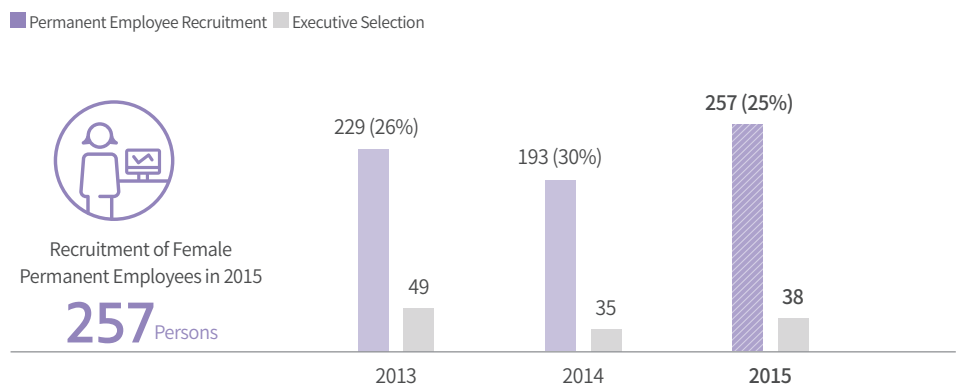
KEPCO rewards and promotes employees without gender discrimination. As a result of the vigorous efforts to nurture female leaders, the number of female managers has continuously increased from a total of seven before 2000 to 264 female leaders as of April 2016. Through systematic childbirth and childcare support systems and various programs for enhancing family relations, KEPCO supports employees to help them achieve a practical balance between work and life. To encourage employees to start families, we provide various types of leave, such as leave for fetal examinations, parental leave for spouses, and leave for treating infertility. In 2008, we established the company's nursery facility and are providing childcare services for 177 children of employees. As we launched the flexible work system, such as commuting at different times and time-based work, we established and operated the 'pool system for alternative personnel' for retirees and general applicants to induce the smooth operation of parental leave and childcare leave.



Workshop for Female Managers

Change in Female Employees

(Unit : person)



Education for Preventing Sexual Harassment

To prevent sexual harassment, KEPCO operates both a secret report system for sexual harassment and center for handling complaints regarding sexual harassment in the HR management department at the headquarters and business offices. A total of 504 representatives handle complaints on sexual harassment; the number of male and female representatives is equal. We have also raised efficiency in consulting complaints by operating professional entrusted education for representatives and an intensive course for handling complaints. Moreover, e-learning education and in-house education for preventing sexual harassment for all employees are implemented four times or spread over a year, and discussions regarding sexual harassment prevention are held by touring business offices besides the operation of a period of time for emphasizing gender equality.



Assessment and Reward

Human Resource Management (MBO, Management by Objectives)

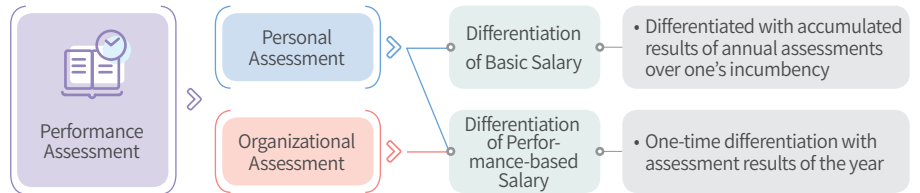
KEPCO's performance assessment system is composed of the achievement assessment by MBO (Management by Objectives) and capability assessment estimating the capability level. All employees are assessed as per the same procedure and methods. Assessment results are reflected to scores that are used in promotion considerations and utilized as materials for personnel management, such as calculating the ratio of providing incentives and selecting trainers.

Fair and Reasonable Remuneration System

KEPCO's remuneration system is composed of a basic annual salary, job salary, incentive for annual salary, and performance-based annual salary and allowance other than the annual salary. Based on the results of the MBO personnel assessment and organizational assessment, the basic annual salary and performance-based annual salary are paid differently by grade. To reinforce the fair remuneration system based on employees' performance, wages are paid differently in consideration of the level of importance, difficulty and responsibility; the ratio of incentives based on the annual performance assessment is increased; and the power incentive system is vitalized. In preparation of an aging society, we operate a retirement benefit system to help employees achieve stable living during their retirement. As of late 2015, the number of people holding personal retirement pension accounts is 10,840.

Current Status of People Participating in the Retirement Benefit System

(Unit : 100 persons)

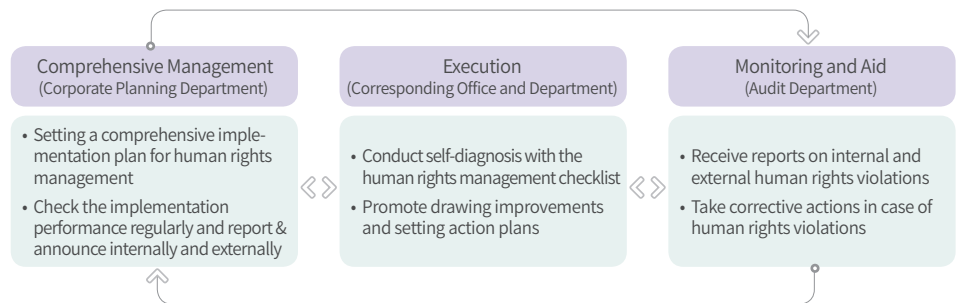


Human Rights Management

Implementation System of Human Rights Management

KEPCO carries out various policies for respecting the human rights of executives & employees and stakeholders in recognition of the importance of human rights. We took the initiative to establish and settle the implementation system of the human rights management such as joining the UN Global Compact ('05), the first Korean company, and the enactment & promulgation of the human rights management declaration for the first time among public companies in Korea ('15).

Implementation System of the Human Rights Management



Major Implementations

KEPCO conducts the human rights management in accordance with the UN Guiding Principles on Business and Human Rights and Human Rights Guideline by the National Human Rights Commission of Korea. The pledge of practicing human rights by all employees and the periodic check on the current status of practices using the self-diagnosis checklist are implemented to expand the human rights management across the company. Through the KEPCO Code of Conduct for Suppliers, the recommendation to comply with human rights protection of all provisions dealing with KEPCO is stated. Additionally, KEPCO operates communication channels to prevent human rights violations such as grievance processing and the direct report to the CEO for executing management focusing on human rights of all internal and external stakeholders.



Human Rights Management Declaration



Industrial Safety and Health

Establishment of the Safety Management System

By introducing the international standard safety and health management system across the company and partner companies, we have established and maintained an autonomous safety management system with the standardization of jobs and the acquisition of a certificate from an authorized agency. For the efficient operation of the system, the continual training for specialized personnel such as certification examiners and internal examiners has been operated and 239 specialized personnel (including 67 employees acquired the certification of examiner) run the system, conduct internal diagnoses and deliver internal training as of late 2015. A safety management committee consisting of five outside experts and five in-house experts is operated and carries out deliberations and consultations for important corporate safety-related issues on safety policy and the system, and countermeasure the establishment in case of safety accidents through quarterly meetings.



Certification for the Safety and Health Management System

Dissemination of the Safety Culture

For the dissemination of the safety culture, KEPCO publishes Safety-Zine, operates a safety accident forecast and warning system for each cycle, provides a safety calendar and traffic lights on a daily basis, and conducts e-learning safety education. During the summer when the safety level is vulnerable, the labor union and management jointly operate a period of emphasizing industrial health and safety (June and July each year) to carry out special activities for preventing safety accidents, strive to improve safety awareness by holding a company-wide workshop for health and safety management staff every year. To prevent safety accidents of the general public, electricity safety accidents due to moving and outdoor activities and electric shock accidents due to touching a power line on a construction site and localized heavy rain and typhoons are chosen as themes for spring and summer, respectively and activities for promoting electrical safety are implemented via various media (broadcasting, newspapers and SNS, etc.) In recognition of these efforts, KEPCO received a presidential citation at the contest for the best practice of Safety Culture award in 2015 by the Ministry of Public Safety and Security.



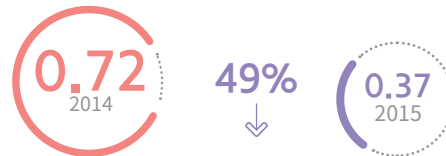
Remote Safety Management System for the Construction Site



Grand Prize of Safety Culture Award in 2015

Development of Field-oriented Safety Management Activities

Considering all sorts of accident risks and shortages in manpower at construction sites, KEPCO withstands the space-time limitation of on-site safety management by building a 「remote safety management system for construction sites」, and 「Safety Patrol」 inspection team that is especially operated to prevent the careless behavior of workers such as not wearing a safety harness. As a result of these efforts, the hazard rate of placed orders has dramatically decreased by 49% year on year.

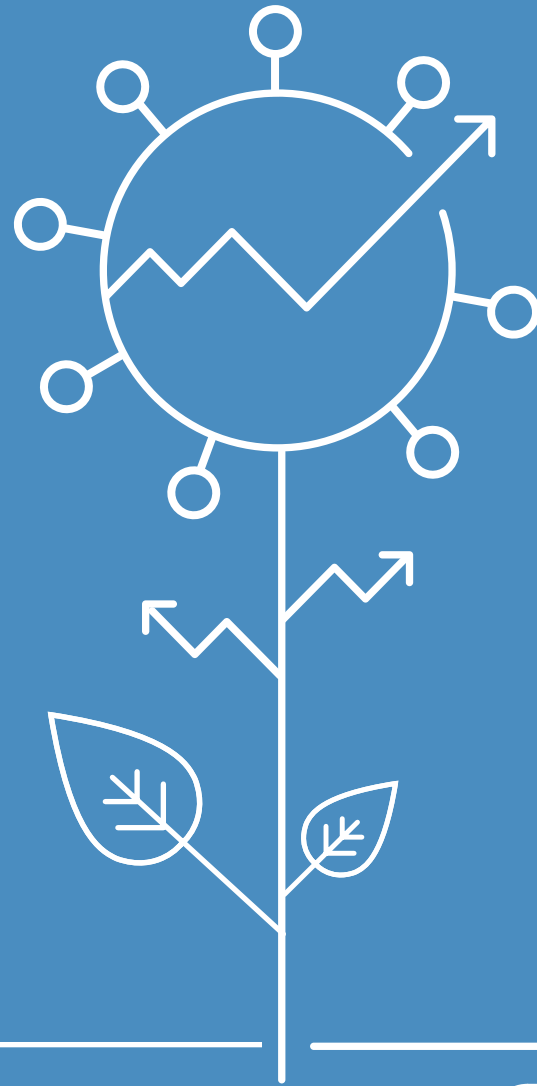


*Hazard Rate of Placed Orders (announced by the Ministry of Employment and Labor)

Health Care Program for Executives and Employees

To improve the health of executives and employees, KEPCO conducts special check-ups every two years in addition to regular check-ups to examine their health conditions more closely. From 2014, we have implemented a special medical examination for employees working the nightshift, and the job stress test and counseling program will be provided starting in 2016. For business sites with over 300 employees, health managers are stationed for the health of the employees and health affairs, and periodic medical examinations and health counseling are operated through the health agencies for business sites with over 50 employees. In connection with community health centers, we operate various health promotion programs such as a smoking cessation clinic, health consultation on an insulin resistance syndrome, and consultation on mental health to reinforce employees' health management. Furthermore, a prompt and systematic disease control system has been established and operated with the improvement of a practical manual for infectious disease crisis management, and with these efforts, no KEPCO employees were infected with MERS in 2015.

Performance Data



Economy	70
Environment	72
Society	74
Others	75



Economy

Financial Information

Consolidated financial statements

(Unit : KRW 100 million)

Item	55 th (Jan. 1 st , 2015 – Dec. 31 st , 2015)	54 th (Jan. 1 st , 2014 – Dec. 31 st , 2014)	53 rd (Jan. 1 st , 2013 – Dec. 31 st , 2013)
1. Current assets	220,253	168,199	152,691
(1) Trade receivables and other bonds	74,735	76,979	75,263
(2) Cash and cash equivalents	37,831	17,963	22,323
(3) Others	107,687	73,257	55,105
2. Non-current assets	1,532,321	1,468,884	1,402,582
(1) Property, plant and equipment	1,413,614	1,358,125	1,296,376
(2) Intangible assets	8,584	8,236	8,132
(3) Investments in associates, etc.	56,935	55,087	52,308
(4) Other non-current assets	53,188	47,436	45,766
Total assets	1,752,574	1,637,083	1,555,273
1. Paid-in capital	2,227,108	216,001	202,138
2. Non-current liabilities	846,041	872,832	838,628
Total liabilities	1,073,149	1,088,833	1,040,766
1. Paid-in capital	40,536	40,536	40,536
2. Retained earnings	481,872	353,036	327,661
3. Other capital components	143,937	142,441	134,400
4. Non-controlling equity	13,080	12,237	11,910
Total capitals	679,425	548,250	514,507
Total liabilities and capitals	1,752,574	1,637,083	1,555,273

Consolidated(Comprehensive) income statement

(Unit : KRW 100 million)

Item	55 th (Jan. 1 st , 2015 – Dec. 31 st , 2015)	54 th (Jan. 1 st , 2014 – Dec. 31 st , 2014)	53 rd (Jan. 1 st , 2013 – Dec. 31 st , 2013)
1. Sales	589,577	574,749	540,378
2. Cost of sales / Other sales and management expenses	476,110	516,873	525,188
3. Operating loss/profit	113,467	57,876	15,190
4. Other revenues	4,322	4,023	4,002
5. Other expenses	1,088	882	998
6. Other losses/profits	86,108	1,074	1,285
7. Financial profit	11,830	8,853	6,295
8. Financial cost	30,155	31,400	29,316
9. Gain and loss in equity method	2,074	2,749	△ 423
10. Pre-tax margin	186,558	42,293	△ 3,965
11. Income tax expenses	52,394	14,303	△ 5,708
12. Net income	134,164	27,990	1,743
13. Net income from controlling interests	132,891	26,869	600
14. Net income from non-controlling interests	1,273	1,121	1,143

Creating Economic Value

(Separate standard)

Category	2013	2014	2015
Sales volume (GWh)	474,849	477,592	483,655
Sales (KRW 100 million)	536,924	573,344	585,404
Operating profit (KRW 100 million)	2,630	16,737	44,254
Net income (KRW 100 million)	2,383	10,388	101,657
Cash flow (KRW 100 million)	44,899	62,716	97,510

* Turning into surplus in 2013 for the first time in six years from 2007

Enterprise Value

(Based on closing price of the year)

Category	2013	2014	2015
Stock Price (KRW)	34,750	42,700	50,000
Market Value (KRW 100 million)	223,083	274,119	320,982
Credit Rating (Moody's)	A1 Stable	Aa3 Stable	Aa2 Stable
Domestic Ranking in Aggregate Value of Listed Stock	4th	4th	3rd

Distributing Economic Value

(Unit : KRW 100 million)

Shareholders (Dividend)

Category	2013	2014	2015
Government	122	680	3,622
General	302	1,606	10,047
Foreigners	137	924	6,232
Total	561	3,210	19,901
Dividend rate (%)	1.8	10	62

GENCOs (Purchased electricity cost)

Year	2013	2014	2015
Total	452,228	467,547	432,185

Creditors (Interest expense)

Year	2013	2014	2015
Total	15,252	13,941	10,926

Donation

Year	2013	2014	2015
Total	140	161	151

Executives and Employees

Category	2013	2014	2015
Wage	12,996	13,415	15,325
Retirement wage	2,063	145	1,537
Welfare benefits	1,660	1,420	2,039

Amount of purchase of SME products

Year	2013	2014	2015
Total	42,565	50,288	58,259



Environment

Total Amount of Material Use

(Unit : ton)

Category	2013	2014	2015
Concrete	455,026	453,498	602,605
Metal	54,410	67,368	103,597
Earthenware	1,727	2,552	68
Wire	36,088	31,127	42,586
Others	6,118	8,423	13,430
Total amount of material use	553,369	560,538	762,286

Generation of Waste by Type and Amount of Recycling

Category	2013			2014			2015		
	Generated amount(ton)	Amount of recycling(ton)	Recycling rate (%)	Generated amount(ton)	Amount of recycling(ton)	Recycling rate (%)	Generated amount(ton)	Amount of recycling(ton)	Recycling rate (%)
Concrete	190,226	190,226	100	215,565	215,565	100	51,561	51,561	100
Metal	40,195	40,195	100	39,710	39,710	100	22,449	22,449	100
Earthenware	6,367	6,367	100	8,777	8,777	100	23	23	100
Wire	23,628	23,628	100	13,484	13,484	100	6,254	6,254	100
Others	809	809	100	898	898	100	1,890	1,890	100
Total amount of material use	261,225	261,225	100	277,894	277,894	100	82,177	82,177	100

Change in the Ratio of Eco-friendly Vehicles for Business Use

Category	2013	2014	2015
Vehicles for business (car)	1,775	1,775	1,843
Eco-friendly vehicles (car)	1,460	1,588	1,603
Compact cars	1,383	1,357	1,312
Hybrid cars	67	91	146
Electric cars	10	40	145
Ratio of eco-friendly vehicles (%)	82.3	83.8	87.0

Amount and Ratio of Green Product Purchase

(Unit : KRW million, %)

	2013			2014			2015		
	Total	Green	Ratio	Total	Green	Ratio	Total	Green	Ratio
	19,414	18,819	96.9	8,326	7,868	94.5	16,575	15,574	94.0

Performance for implementing emission trading

(Unit : 10,000 tons CO₂e)

Category	2015
National permitted amount	111
Amount of emissions	130.9

KEPCO GHG Emission Classification

Scope 1 (Direct Emission)

SF₆ gas for insulation in transformation and distribution facilities

Scope 2 (Indirect Emission)

Electricity and heating steam usage in buildings owned by KEPCO

Scope 3 (Indirect Emission)

Emissions from employees' business trips, commuting, and products purchased or sold

Scope 1, 2 (2013~2015)

(Unit : 10,000 tons CO₂e)

Category	2013	2014	2015
Scope 1	130	128	115
Scope 2	13	14	16

Notes Major greenhouse gas SF₆, CO₂, CH₄, N₂O

- * Emission factors: Basic emission factors in the 2006 IPCC national inventory guidelines
- * Methodology: Adopting the methodology for collecting data on activity (Article 44) in the guidelines for the national operation of management for the goals of greenhouse gas energy
- * All business branches including small-sized offices

Scope 3 (2015)

(Unit : 10,000tons CO₂e)

Category	Amount of purchased electricity	Amount of sold electricity	Commuting by employees	Business trips
Emissions	20,053	19,813	0.03	1.4

- * Emission factors
- Purchased electricity and electricity for sales: Corporate Value Chain (scope 3)
- Commuting and business trips: LCIDB and data by Statistics Korea
- * Methodology(common): Adopting the Accounting and Reporting Standard

Intensity of GHG emissions

Category	Emission (10,000 ton CO ₂ e)	Intensity (ton/KRW 100 million)
Scope 1		1.94
Scope 2	16	0.27

* Sales in 2015: KRW 58 trillion and 957.7 billion

Environmental investment rate

Category	Amount (KRW 100 million)	Percentage (%)
Eco-friendly power facilities	35,815	93.25
Prior prevention	1,726	4.55
Post-processing activities	585	1.55
Legal response, etc.	265	0.65
Total	38,391	100.00

Society

Domestic performance for new recruitment (Unit : person)

Category	2013	2014	2015
	819	753	1,041
High school graduates	238	190	226
Local talented workers	350	321	495
Female workers	229	193	257
Disabled	17	6	11
Workers who majored in natural science and engineering	400	395	601

Performance on operating various maternity protection systems (Unit : person, %)

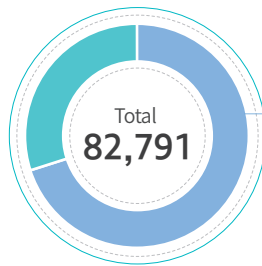
Category	2013	2014	2015
Leave before and after childbirth	151	138	122
Parental leave (male employees)	197 (14)	185 (15)	161 (22)
Leave for difficulty in pregnancy	10	10	15
Employees with shortened work for child care	12	10	9
Rate of return after parental leave (Female/Male)	99.2/100	99.3/100	97.9/93.3

Performance on purchasing SME products (Unit : KRW 100 million)

- SMEs 58,259
- Large Companies 24,532

Increase of Purchasing SMEs' products by

KRW **797.1** billion
compared to 2014



Current status of suppliers of equipment (Unit : 10,000 tons CO₂e)

Category	Number of registered items	Number of registered companies
Transmission and transformation	224	590
Distribution	217	1,084
Information communications	3	6
Total	444	1,680

Notes

- Total number of companies: 244
- Large companies: 11 - SMEs: 233

Number of employees receiving annual education (Unit : person)

Category	2013	2014	2015
High-ranking executives	1,969	2,223	2,302
Entry-level executives	5,991	5,680	5,750
Employees	12,517	15,618	15,849

Performance on operating a flexible work system (Unit : person)

Category	2013	2014	2015
Commute with different times	2,241	1,215	1,562
Time-based work	44	94	211

Performance on purchasing products from female companies (Unit : KRW 100 million)

Category	Purchase performance
Female companies	8,289
Companies by the disabled, social enterprises	259
Products produced by veterans and patriots	343
Others	49,368

Current status of the accident rate in ordered construction (Unit : person)

Category	2013	2014	2015
Accident rate (%) ¹⁾	0.97	0.72	0.37
Rate of death in industrial accidents (‰) ²⁾	7.43	5.27	1.00

1) Accident rate (%) = [(Death toll + Number of the injured) / Number of regular employees] x 100

2) Rate of death in industrial accidents (‰) = (Death toll / Number of regular employees) x 10,000

Others

GENCOs

<p>Korea Hydro & Nuclear Power Co., Ltd. (KHNP) Equity share 100%</p>	<p>Address: 1655, Bulguk-ro, Gyeongju, Gyeongbuk Employees: 11,116 Paid-in capital: KRW 1 trillion and 212.2 billion Website: www.khnp.co.kr</p>	<p>KHNP is Korea's only company that operates nuclear power plants as well as hydropower and pumped storage power plants. KHNP is operating nuclear power plants as a base load and hydroelectric plants as a peak load. KHNP has a total capacity of 26,039 MW at 79 units, including 23 nuclear units (20,716 MW), 34 hydroelectric units (606 MW), 16 pumped storage power generation units (4,700MW), and six renewable energy units (17 MW). KHNP accounts for about 27.9% of total domestic generation facilities with 93,216 MW (excluding self-facilities).</p>
<p>Korea South-East Power Co., Ltd. (KOSEP) Equity share 100%</p>	<p>Address: 32, 123beon-gil, Sadeul-ro, Jinju, Gyeongsangnam-do Employees: 2,184 Paid-in capital: KRW 290.1 billion Website: www.kosep.co.kr</p>	<p>KOSEP is operating the Samcheonpo Thermal Power Plant and Yeongheung Thermal Power Plant as a base load. KOSEP has an installed capacity of 9,976 MW in total, which includes 8,648 MW from 13 bituminous coal units (87.0%), 922MW from 10 gas combined cycle units (9.2%), and 325MW from anthracite units (3.3%). Under the long-term power supply plan, Yeongheung Thermal Power Plant Units 5&6 are under construction with an installed capacity of 1,740 MW. The Yeosu Power Plant Unit 1(350 MW), which is shut down, is being replaced with a thermal power plant.</p>
<p>Korea Midland Power Co., Ltd. (KOMIPO) Equity share 100%</p>	<p>Address: 160, Boryeongbuk-ro, Boryeong, Chungcheongnam-do Employees: 2,309 Paid-in capital: KRW 137.3 billion Website: www.komipo.co.kr</p>	<p>KOMIPO is operating the Boryeong Thermal Power Plant and the Seocheon Thermal Power Plant as a base load. KOMIPO has an installed capacity of 8,434 MW in total, which breaks down as 4,000MW of eight bituminous coal units (47.4%), 3,731 MW of 23 gas combined cycle units (44.2%), 400 MW of two anthracite units (4.7%), and 285 MW of four oil units (3.4%). Under the long-term power supply plan, KOMIPO is building Sinboryeong Units 1 & 2 (2,000 MW) and Seoul combined cycle Units 1 & 2 (800 MW).</p>
<p>Korea Western Power Co., Ltd. (WP) Equity share 100%</p>	<p>Address: 285, Jungang-ro, Taean, Chungcheongnam-do Employees: 2,166 Paid-in capital: KRW 158.9 billion Website: www.westempower.co.kr</p>	<p>WP is operating the Taean Thermal Power Plant as a base load. The WP has an installed capacity of 9,305 MW in total, which includes 4,000MW of eight bituminous coal units (43%), 3,867 MW of 27 gas combined cycle units (41.6%), and 1,400 MW of four oil units (15.0%). Under the long-term power supply plan, WP is building the Taean thermal plant Units 9 & 10 (2,100 MW).</p>
<p>Korea Southern Power Co., Ltd. Equity share 100%</p>	<p>Address: 40, Munhyeongeumyung-ro, Nam-gu, Busan Employees: 2,065 Paid-in capital: KRW 228.8 billion Website: www.kospo.co.kr</p>	<p>KOSPO is operating the Hadong Thermal Power Plant as a base load. KOSPO has an installed capacity of 9,217 MW in total, which breaks down as 4,000 MW of eight bituminous coal units (43.4%), 4,970 MW of 33 gas combined cycle units (53.9%), 200 MW of 2 oil units (2.2%), and 41MW of 19 wind units (1.3%). Under the long-term power supply plan, KOSPO is building Samcheok Green Power (2,044 MW). EWP is operating the Dangjin Thermal Power Plant and Honam Thermal Power.</p>
<p>Korea East-West Power CO., Ltd. Equity share 100%</p>	<p>Address: 395, Jongga-ro, Jung-gu, Ulsan Employees: 2,300 Paid-in capital: KRW 282.9 billion Website: www.ewp.co.kr</p>	<p>EWP is operating the Dangjin Thermal Power Plant and Honam Thermal Power Plant as a base load. EWP has an installed capacity of 9,137 MW, which includes 4,500 MW of 10 bituminous coal units (49.3%), 2,972 MW for 20 LNG combined cycle units (32.3%), 1,200 MW of three oil units (13.1%), and 400 MW of two anthracite units (4.4%). Under the long-term power supply plan, EWP is building the 9th and 10th units of the Dangjin thermal plants (2,040 MW).</p>

KEPCO Group Companies and Companies with Equity Investment

<p>KEPCO Engineering & Construction Company, Inc. Equity share 66.3%</p>	<p>Address: 269, Hyeoksin-ro, Gimcheon, Gyeongbuk Employees: 2,316 Paid-in capital: KRW 7.6 Website: www.kepc-enc.com</p>	<p>As an engineering company related to power generators and plants, KEPCO Engineering & Construction Company, Inc. has conducted the design of nuclear power plants and hydro-thermal plants, O&M for generation facilities, plant construction business, and PM/CM business since its foundation in 1975. The company implemented the Korea-style standardization of the design of nuclear power plants with 1,000 MW and developed the next-generation nuclear power plant design. With this applied design, the company is implementing the design for the 3rd, 4th, 5th, and 6th units of Shin-Kori, 1st and 2nd of Shin-Hanul, and the UAE Barakah nuclear power plant.</p>
<p>KEPCO KPS Co., Ltd. Equity share 52.5%</p>	<p>Address: 211, Munhwa-ro, Naju, Jeonnam Employees: 5,455 Paid-in capital: KRW 9 billion Website: www.kps.co.kr</p>	<p>KEPCO Plant Service & Engineering (KPS) is a comprehensive plant service company and provides high-quality maintenance services for power plants (nuclear, thermal, and hydroelectric), transmission and substations, and industrial facilities. KPS is responsible for commissioning the maintenance of power plants under construction, and ordinary maintenance, planned outage, and other repairs & maintenance of power plants in operation, contributing to preventing unplanned shutdowns and improving the capacity factor.</p>
<p>KEPCO Nuclear Fuel Co., Ltd. Equity share 96.4%</p>	<p>Address: 989-242 Daedeokdaero, Yuseong-gu, Daejeon City Employees: 1,111 Paid-in capital: KRW 93.2 billion Website: www.knfc.co.kr</p>	<p>KEPCO Nuclear Fuel is the only nuclear fuel design and manufacturing company that was established to localize nuclear fuel and achieve technological self-reliance. KEPCO Nuclear Fuel is providing nuclear fuel for all light and heavy water reactors in Korea and will supply fuel to the UAE nuclear power plant. As it completed the development of two types of high-performance nuclear fuel, KEPCO Nuclear Fuel has secured the competitiveness for exporting domestic nuclear fuel.</p>
<p>KEPCO KDN Co., Ltd. Equity share 100%</p>	<p>Address: 161, Bitgaram-ro, Naju, Jeonnam Employees: 2,166 Paid-in capital: KRW 158.9 billion Website: www.kdn.com</p>	<p>Since KEPCO Knowledge, Data & Network (KEPCO KDN) was founded as the IT provider of KEPCO, KDN has offered total IT services, growing into a global electric power IT company. KEPCO KDN has been mainly engaged in the development/operation of information systems, electric power IT service, the development and maintenance of IT infrastructure, smart distribution system, and information security. KEPCO KDN is now striving to enhance PLC AMI and the smart distribution system to realize the smart grid.</p>

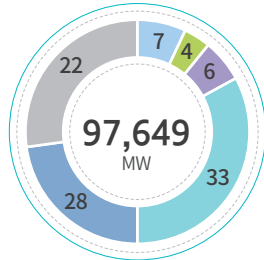
Current status of feneration facilities

(As of December 31st, 2015)

Facility Capacity

(Unit : %)

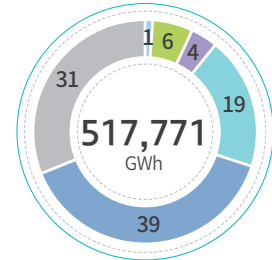
- Water Power
- Oil
- Renewable Energy, etc.
- LNG
- Coal
- Nuclear Power



Amount of Generated Power

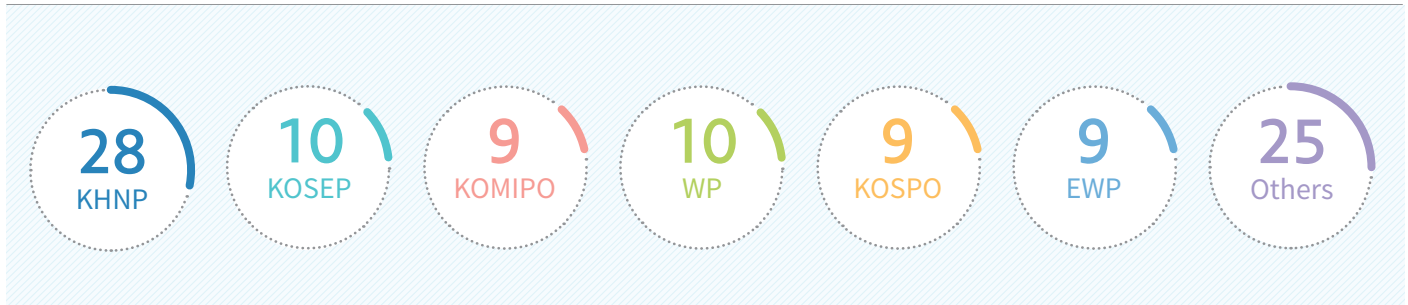
(Unit : %)

- Water Power
- Oil
- Renewable Energy, etc.
- LNG
- Coal
- Nuclear Power



Facility capacity rate by company

(Unit : %)



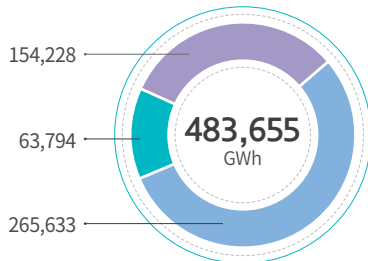
Current status of electricity sales

(As of December 31st, 2015)

Amount of Electricity Sales

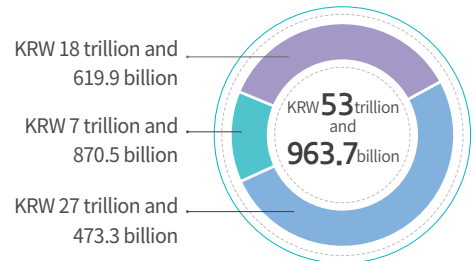
(Unit : Gwh)

- Public Use/Service
- Household
- Manufacturing



Electricity Sales Revenue

- Public Use/Service
- Household
- Manufacturing



Appendix



Independent Assurance Statement	78
GRI G4 Index	80



Independent Assurance Statement for ‘KEPCO Sustainable Management Report 2016’

Dear KEPCO Stakeholders

This is an assurance statement by the Korea Productivity Center (the ‘Assurer’) who was commissioned by Korea Electric Power Corporation (KEPCO) to provide an independent assurance of the KEPCO Sustainability Report 2016 (the ‘Report’).

Responsibility and Integrity

KEPCO is responsible for the reliability and accuracy of all information and opinions presented in this ‘Report’. The Assurer holds the responsibility that lies solely in providing third party verification of the content in the ‘Report’. As an independent assurance agency, the Assurer was neither involved in the process of preparing this ‘Report’ nor in any conflicts of interest that may undermine our independence.

Assurance Standards

As per AA1000AS (2008), the Assurer performed the verification of the Report by adapting moderate level verification type 1. Conformities of Inclusivity, Materiality and Responsiveness to the AA1000APS Accountability Principle (2008) are also verified as well as compliance of the contents in the Report with GRI G4 Guidelines.

Limitations

Based on the aforementioned assurance standards, the Assurer performed the verification of the organization’s sustainability performance and credibility during 2015. As for some environmental data such as greenhouse gas emissions and the amount of water usage, we deliberated on materials which were submitted to the government. As for economic data such as financial data, financial statements, which was audited by auditing institutions, the data on ALIO were checked. In terms of social data, we checked the moderate level of the verification by using Type 1 and sampling. Site inspection was performed at the head office in Naju. Therefore, the Assurer clearly states that any additional verification conducted in the future may issue varied results.

Assurance Methodology

The assurance was undertaken by following the methodology specified below.

1. Verified compliance with the requirements for the Core Options in the GRI G4 Guidelines.
2. Verified consistency with the principles dictating the content and quality of sustainability reports based on the GRI G4 Guidelines.
3. Verified the appropriateness of identifying key issues and the responsiveness to the content presented in the Report by the material analysis methodology, media research, and benchmarking.
4. On-site verification at the head office and plant has been conducted to confirm evidence for key data and information as well as internal processes.

Finding and Conclusion

The Assurer confirmed that the Report fairly and accurately presents the sustainability management efforts and performance of KEPCO. It is also verified that the Report complies with the requirements for the Core Options in the GRI G4 Guidelines.

In terms of General Standard Disclosures, the Report is found to comply with the requirements for Core Options. For Specific Standard Disclosures, Disclosure on Management Approach (DMA) and indicators for material issues drawn by the below report item decision process are reviewed.

Contents	Material Aspect	DMA & Indicators
Ethical Management	Anti-corruption	DMA, SO3, SO4, SO5
Respecting Customers	Availability & Reliability	DMA, EU6
	Demand-Side Management	EU7
Adding Technology	Research & Development	DMA, EU8
Preserving the Environment	Energy	DMA, EN3, EN6
	Emissions	DMA, EN15, EN16, EN17, EN18, EN21
Joining Humanity	Anti-competitive Behavior	DMA, SO7
	Local Communities	DMA, SO1, EU19
Caring People	Occupational Health and Safety	DMA, LA5, LA6, LA7
	Training and Education	DMA, LA9, LA10, LA11
Performance Data	Economic Performance	EC1, EC2, EC3
	Procurement Practices	EC9

Inclusivity: Engagement of Stakeholders

The principle of inclusivity articulates that an organization should include its stakeholders in developing and achieving an accountable and strategic response plan for sustainability. To comply with the inclusivity principle, KEPCO defines its major stakeholders such as the public, customers, shareholders and investors, local communities, the government and relevant institutions, domestic partners, overseas partners, executives and employees and the labor union. As the company introduces communication methods with each group and its efforts to deal with issues, it was identified that KEPCO vigorously collects stakeholders' opinions through active communication. In particular, it is analyzed that the company's efforts to disclose the communication performance with the stakeholders in quantitative form including VOC operating performance and information disclosure performance are remarkable.

Materiality: Selecting and Reporting Major Issues

The principle of materiality articulates that an organization should focus on issues that are relevant and material to both the organization and its major stakeholders. KEPCO organizes not only its sustainable management issues but other issues based on the results of internal and external environmental analyses and the stakeholders' research. It was verified that the company selected ten core issues by conducting the materiality test process based on the stakeholders' influence and business significance. Finally, it was confirmed that the core issues were reported in line with five value-oriented messages, and the management principles (DMA) were applied by reflecting the background for selection, major performances and future plans.

Responsiveness: Responding to Issues by the Organization

The principle of responsiveness articulates that an organization should be responsive to issues that may have an impacts on stakeholders' performance. KEPCO constitutes that the Report with five value-oriented messages and faithfully discloses its efforts to respond to the core issues by reporting environmental analysis, response process, strategy and performance in detail. Through this report, it is expected that the understanding of the national electric power industry could be promoted, and the responsibility of KEPCO as a public company and the blueprint of the future electric power market could be found.

Recommendations

The Assurer commends Korea Electric Power Corporation for carrying out a variety of efforts to improve sustainability and the resulting performances, and presents the following recommendations to enhance future sustainability reports and sustainable management.

- 1. Reinforce the System of Stakeholders' Engagement :** Stakeholders' influence is quantitatively measured and the materiality test is conducted to select the core issues. It is analyzed that it is an important time for KEPCO to systematically manage current issues beyond simply identifying what the issues are for the sustainable management. To this end, it is recommended to comprehensively manage issues collected via communication channels with the stakeholders and to meet the needs by report responses taken in detail.
- 2. Establish a System for Operating Sustainable Management Performance :** Data related to the sustainable management should be managed thoroughly by setting the standard and scope of collection, and management department. It is recommended; specifying the reporting scope such as the headquarters, GENCOs and electricity group companies; collecting data regularly by setting a process of the official data collection and management; and periodically checking data by responsible departments in accordance with the same standard for the entire report, to KEPCO for improving the system.

July, 2016

Hong Sun-jik
Chairman, Korea Productivity Center



Kim Dong-soo *D.S. Kim*
Director of Sustainable Management Center

Park Tae-ho *Tae-ho*
Team Leader

Park Ju-mi *Ju-mi*
Expert Advisor

Yu Jeong-a *Jeong-a*
Researcher

The Sustainability Management Center of the Korea Productivity Center is an assurance agency officially certified by Accountability, established AA1000, the international standards for Stakeholder engagement and verification, and has the qualifications to perform independent assurance engagements. Our Assurance Committee is also comprised of competent experts who have in-depth experience in sustainability management consulting and assurance and completed the relevant professional training.

* AA1000AS (2008): Enacted by Accountability, the AA1000 Assurance Standard (2008) is a global standard for the verification and provides methods for reporting issues on sustainable management by assessing the operation of organization for management performance, compliance with principles, and the credibility of information on performance

* AA1000APS (2008): Enacted by Accountability, the AA1000 Accountability Principles Standard (2008) is a global standard for verification and provides the principles for the foundation of the AA1000 standard.



GRI G4 Index

Aspect	G4	Indicators	ISO 26000	Coverage	Page	Notes
Strategy and Analysis	G4-1	Statement from the Most Senior Decision-maker of the Organization (such as CEO, chair or equivalent senior position) about the Relevance of Sustainability to the Organization and the Organization's Strategy for Addressing Sustainability	4.7 /6.2 /7.4.2	●	2~3	
	G4-2	Description of Key Impacts, Risks, and Opportunities		●	2~3	
	G4-3	Name of the Organization		●	6	
	G4-4	Primary Brands, Products, and Services		●	6	
	G4-5	Location of the Organization's Headquarters		●	52	
	G4-6	Number of Countries Where the Organization Operates, and the Names of Countries Where Either the Organization has Significant Operations or are Specifically Relevant to the Sustainability Topics Covered in the Report		●	32-33	
	G4-7	Nature of Ownership and Legal Form		●	6	
	G4-8	Markets Served (including geographic breakdown, sectors served, and types of customers and beneficiaries)		●	32~33	
	G4-9	Scale of the Organization		●	6, 75~76	
	G4-10	Total Number of Employees		●	6, 74	
Organizational Profile	EU1	Installed Capacity, Broken down by Primary Energy Source and by Regulatory Regime		●	75~76	
	EU2	Net Energy Output Broken down by Primary Energy Source and by Regulatory Regime	6.3.10/6.4.1-6.4.2/ 6.4.3/6.4.4/6.4.5/ 6.8.5/7.8	●	75~76	
	EU4	Length of above and Underground Transmission and Distribution Lines by Regulatory Regime		●	26	
	EU5	Allocation of CO ₂ Emissions Allowances or Equivalent, Broken down by Carbon Trading Framework		●	45	
	G4-11	Percentage of Total Employees Covered by Collective Bargaining Agreements		●	65	
	G4-12	Organization's Supply Chain		●	6, 74	
	G4-13	Any Significant Changes during the Reporting Period Regarding the Organization's Size, Structure, Ownership, or its Supply Chain		●	0	
	G4-14	Precautionary Approach or Principle Addressed by the Organization		●	16~17	
	G4-15	List of Externally Developed Economic, Environmental and Social Charters, Principles, or Other Initiatives to Which the Organization Subscribes or Which It Endorses		●	0, 67, 84	
	G4-16	Memberships of Associations (such as industry associations) and National or International Advocacy Organizations		●	84	
Identified Material Aspects and Boundaries	G4-17	Entities Included in the Organization's Consolidated Financial Statements or Equivalent Documents or Not Covered by the Report		●	6, 70~71	
	G4-18	Process for Defining the Report Content and the Aspect Boundaries and How the Organization Has Implemented the Reporting Principles for Defining Report Content		●	20	
	G4-19	List of All the Material Aspects Identified in the Process for Defining the Report Content		●	20	
	G4-20	Aspect Boundary within the Organization for Each Material Aspect	5.2/7.3.2/7.3.4	●	20	
	G4-21	Aspect Boundary outside the Organization for Each Material Aspect		●	20	
	G4-22	Effects of Any Restatements of Information Provided in Previous Reports, and the Reasons for Such Restatements		●	0	No significant changes
	G4-23	Significant Changes from Previous Reporting Periods in the Scope and Aspect Boundaries		●	0	

Aspcet	G4	Indicators	ISO 26000	Coverage	Page	Notes
Stakeholder Engagement	G4-24	List of Stakeholder Groups Engaged by the Organization	5.3	●	18-19	
	G4-25	Basis for Identification and Selection of Stakeholders with Whom to Engage		●	18-19	
	G4-26	Organization's Approach to Stakeholder Engagement, Including the Frequency of Engagement by Type and by Stakeholder Group, and an Indication of Whether Any of the Engagement was Undertaken Specifically as Part of the Report Preparation Process		●	18-19	
	G4-27	Key Topics and Concerns that Have Been Raised through Stakeholders Engagement and How the Organization Has Responded to Those Key Topics and Concerns, Including through its Reporting. Stakeholder Groups that Raised Each of the Key Topics and Concerns		●	18-19	
	G4-28	Period Such as Fiscal or Calendar year for Information		●	0	
Report Profile	G4-29	Date of Most Recent Previous Report (if any)	7.5.3/7.6.2	●	0, 85	
	G4-30	Reporting Cycle (such as annual, biennial)		●	85	
	G4-31	Contact Point for Questions Regarding the Report or Its Contents		●	85	
	G4-32	'In Accordance' Option the Organization Has Chosen and the GRI Content Index for the Chosen Option		●	80-83	
	G4-33	Organization's Policy and Current Practice with Regard to Seeking External Assurance for the Report, Scope and Basis of Any External Assurance Provided, Relationship between the Organization and the Assurance Providers, Whether the Highest Governance Body or Senior Executives are Involved in Seeking Assurance for the Organization's Sustainability Report		●	78-79	
Governance	G4-34	Governance Structure of the Organization, Including the Committees of the Highest Governance Body, and any Committees Responsible for Decision-making on Economic, Environmental and Social Impacts	6.2/7.4.3/7.7.5	●	12-13	
	G4-38	Composition of the Highest Governance Body and its Committees		●	12	
	G4-39	Whether the Chair of the Highest Governance Body is Also an Executive Officer		●	12	
	G4-40	Nomination and Selection Processes for the Highest Governance Body and its Committees, and the Criteria Used for Nomination and Selecting the Highest Governance Body Members		●	12	
	G4-41	Process for the highest governance body to ensure the conflicts of interest are avoided and managed		●	12-13	
	G4-42	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to the economic, environmental and social impacts		●	12-13	
Ethics and Integrity	G4-44	Processes for the Evaluation of the Highest Governance Body's Performance with Respect to the Governance of Economic, Environmental and Social Topics	4.4/6.6.3	○	12-13	
	G4-45	Highest Governance Body's Role in the Identification and Management of Economic, Environmental and Social Impacts, Risks, and Opportunities (including the Highest Governance Body's Role in the Implementation of the Due Diligence Process) and Whether the Stakeholder Consultation is Used to Support the Highest Governance Body's Identification and the Management of Economic, Environmental and Social Impacts, Risks, and Opportunities		○	12-13	
	G4-56	Organization's Values, Principles, Standards and Norms of Behavior Such as the Codes of Conduct and Codes of Ethics		●	10-11, 14-15	
Ethics and Integrity	G4-57	Internal and External Mechanisms for Seeking Advice on Ethical and Lawful Behavior, and Matters Related to Organizational Integrity, such as Help Lines or Advice Lines	4.4/6.6.3	●	14-15	
	G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines		●	14-15	



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Aspct	G4	Indicators	ISO 26000	Coverage	Page	Notes
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	LA6	Type of Injury and Rates of Injury, Occupational Diseases, Lost Days, and Absenteeism, and Total Number of Work-related Fatalities, by Region and by Gender	6.4.6/6.8.8.	●	68	
	LA7	Workers with High Incidence or High Risk of Diseases Related to their Occupation		●	68	
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	LA9	Average Hours of Training Per Year Per Employee by Gender, and by Employee Category	6.4.7	●	64	
	LA10	Programs for Skills Management and Lifelong Learning that Support the Continued Employability of Employees and Assist them in Managing Career Endings	6.4.7/6.8.5.	●	64	
	LA11	Percentage of Employees Receiving Regular Performance and Career Development Reviews, by Gender and by Employee Category	6.4.7.	●	66	
Diversity and Equal Opportunity	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	6.2.3/6.3.7/6.3.10/6.4.3.	●	12, 66	
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Freedom of Association and Collective Bargaining	HR4	Operations and Suppliers Identified in which the Right to Exercise Freedom of Association and Collective Bargaining may be Violated or at Significant Risk, and Measures taken to Support These Rights	6.3.3/6.3.4/6.3.5/6.3.8 6.3.10/6.4.5/6.6.6.	●	65	
Child Labor	HR5	Operations and Suppliers Identified as Having Significant Risk for Incidents of Child Labor, and Measures Taken to Contribute to the Effective Abolition of Child Labor	6.3.3/6.3.4/6.3.5/6.3.7 6.3.10/6.6.6/6.8.4	●	14	
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Local Communities	G4-DMA			●	50-51	
	SO1	Percentage of Operations with Implemented Local communities, Engagement, Impact Assessments, and Development Programs	6.3.9/6.5.1-6.5.2/6.5.3 6.8	●	55-58	
	EU19	Stakeholders Participation in Decision Making Processes Related to Energy Planning and Infrastructure Development	6.8/6.8.3	●	26	
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	PR4	Total Number of Incidents of Non-compliance with Regulations and Voluntary Codes Concerning Product and Service Information and Labeling, by type of Outcomes		●		No violation
	PR5	Results of Surveys Measuring Customer Satisfaction	6.7.1-6.7.2/6.7.6	●	11	
Marketing Communications	PR7	Total Number of Incidents of Non-compliance with Regulations and Voluntary Codes Concerning Marketing Communications, Including Advertising, Promotion, and Sponsorship, by type of Outcome		●		No violation
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Current Status of Associations and International Organization Memberships

Society/Association name	Pacific	Date
Korean Institute of Electrical Engineers	Promotion and development of academics and technology related to electrical engineering	1961
Korea Standard Association.	Exchange of information on technological standards, including industrial standardization and quality management	1964
Korea Electric Association	Promotion and development of the electric industry	1965
Korea Atomic Industrial Forum	Exchange of nuclear technology at home and abroad	1975
International Construction Association	Raising competitiveness by collecting and analyzing information on overseas construction	1976
Korea Management Association	Innovating management and providing consulting support	1981
Korean Society for Quality Management	Exchange of information among quality management organizations to improve quality management activities	1995
Korean Institute of Electrical and Electronic Material Engineers	Academic exchange and cooperation between industry and academia related to electrical and electronic material engineering	1996
AESIEAP ¹⁾	Cooperation among electric power companies & experts of East Asia and the Western Pacific	1998
Korea New & Renewable Energy Association	Promotion of new and renewable energy industry and information sharing	2004
EEI ²⁾	Protection of the rights of U.S. electric power companies and provision of information on the electric power industry	2004
Korea Plant Industries Association	Exchanging information to raise competitiveness in the plant industry and expand exports	2005
Korea Nuclear Society	Technology development and academic exchange with regard to nuclear power	2007
AEIC ³⁾	Technological exchange among electric power companies in North America	2008
Energy & Mineral Resources Development of Korea	Mutual cooperation for overseas resources development industries and consultation on measures for joint engagement	2008
Korean Association for Industrial Technology Security	Developing policies and cooperation for the protection of industrial technology.	2009
Korea Invention Promotion Association	Exchange of needs and trends of the IPR market	2009
Korea Smart Grid Association	Smart grid information sharing and mutual cooperation	2009
Korea Carbon Capture and Storage Association	Spread and support for providing CCS technology.	2011
Korea Nuclear Association for International Cooperation	Export of the Korean standard nuclear power plant, analysis of overseas nuclear trends, mutual cooperation and information sharing in the nuclear industry	2011
World Nuclear Export Company Group	Pursuing the non-proliferation of nuclear power and safety in nuclear facilities	2011
Future Energy Forum	Review current affairs and policies in the energy sector	2013
Korea Photovoltaic Industry Association	Market research, participate in proposing policies, collect information on new technology	2013
Korea Wind Energy Association	Market research, participate in proposing policies, collect information	2014
International Federation of Inventors' Associations (IFIA)	Establish connections and a cooperation system with the International Business Association regarding R&D new technology	2015

* 1) AESIEAP: Association of the Electricity Supply Industry of East Asia and the Western Pacific)

2) EEI: Edison Electric Institute

3) AEIC: Association of Edison Illuminating Companies

Awards in 2015

Awards	Organization	Date
Global Quality Professional, Grand Prize	Korean Society for Quality Management	May 2015
Best Practice of Safety & Health Win-Win Cooperation Program, Grand Prize	Ministry of Employment and Labor	July 2015
LACP Vision Award, Grand Prize	League of American Communications Professionals	July 2015
The 9th Korea Architect Awards, Public Architecture Prize	Ministry of Land, Infrastructure and Transport	July 2015
2015 Korea Green Architect Competition, Grand Prize	Presidential Architect Policy Committee	October 2015
100 Best Companies to Work for in Korea, GPTW	GWP	October 2015
DJSI (Dow Jones Sustainability Indexes), Excellent Company	Dow Jones	October 2015
Quality Korea, 50 Year Fellow Company Prize	Korean Society for Quality Management	November 2015
2015 Korea Mobile Awards, Public Service, Grand Prize	Ministry of Science, ICT and Future Planning	November 2015
Korea Safety Culture, Presidential Citation	Ministry of Public Safety and Security	November 2015
2015 Road Name Address Merit Institution Citation	Ministry of the Interior	December 2015
2015 Korea Communication, SNS Grand Prize	Korea Business Communicators Association	December 2015

Additional Information on the Report

All Sustainability Reports (issued from 2005), including this one and the Annual Reports, are available for download on the KEPCO website. Additional information about KEPCO's management is available on the websites below. Expressions such as forecast and estimate are used to describe an analysis of the future as of today. Therefore, for specific risks or uncertainties, please refer to Form 20-F.

Category	Website	Address
Business Report	Financial Supervisory Service's DART (data analysis, retrieval and transfer system) / company overview	dart.fss.or.kr
Form 20-F	U.S. Securities and Exchange Commission	www.sec.gov
Annual Report	KEPCO website / Investor Relations / Financial Information	www.kepco.co.kr
Social contribution	KEPCO website / Sustainability	www.kepco.co.kr

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