KOREA ELECTRIC POWER CORPORATION

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BEYOND THE TOP LEADING KEPCO

ANNUAL REPORT 2017

SMART ENERGY CREATOR KEPCO

BEYOND THE TOP

KEPCO ANNUAL REPORT 2017

LEADING KEPCO

Beyond the top, leading KEPCO

For many years, KEPCO has been one of the driving forces behind the development of Korea's power industry, constantly working to evolve and innovate. Now, leveraging our strengths and know-how in power distribution and high-quality electricity supply, we are developing new business models and breaking into new markets. While the onset of the Fourth Industrial Revolution is threatening to create unprecedented challenges for the global energy industry, we will rely on convergence/connectivity to lead the development of a global new energy ecosystem, and strive to achieve co-evolution through openness and cooperation with other industries and academia.

This report describes the financial status, business performance, future prospects, and business strategy of KEPCO(As of December 31, 2016). While the report content is, to the best of our knowledge, based on objective and factual data, the future plans, estimations, predictions, and other information may not be consistent in some respects with the actual outcome.

Contents

01. MESSAGE FROM THE CEO

Dear valued customers and shareholders,

I would like to express my gratitude to all of you for your continued interest and support.

Over the past 119 years, KEPCO has supported Korea's industrial growth, overcoming all of the obstacles we have encountered. Our accomplishments and contributions have been acknowledged with numerous honors. In 2016, KEPCO was named the top electric utility in the Forbes Global 2000; moreover, KEPCO was the top electric utility in the 2016 Platts Top 250 global energy company rankings. In April 2017, Edison Electric Institute presented KEPCO the Platinum Asia-Oceania Index Award in the large-cap category. However, not content to rest on our laurels, we continue to look toward the future, with 2017 marking the beginning of KEPCO's digitalization. Going forward, we will strive to revolutionize our businesses and develop into a smart energy platform provider, leading the way during the Fourth Industrial Revolution.

First, we will enhance power supply stability and management efficiency.

Our top priority has always been, and will continue to be, stable power supply. To this end, we will optimize transmission and distribution (T&D) facilities to provide the world's highest-quality electricity supply, and enhance the reliability of our power grid by introducing more systematic maintenance practices. Furthermore, we will constantly look for and remedy institutional deficiencies, so as to reduce any burden on our customers and enhance value. In addition, we will strengthen transparency and our financial health, thereby ensuring quality growth for our firm.

Second, we will secure future growth drivers through R&D innovation and new business investments.

We are living in an age characterized by an abundance of big-bang technologies. Technological singularity is no longer a hypothesis: artificial intelligence (AI) is set to surpass human intelligence. Against this backdrop, KEPCO will take the lead in developing next-generation core technologies, both independently and in collaboration with research institutes and academia. We will spare no expense in innovating and investing in new energy technologies such as AI and the Internet of Things (IoT). Moreover, by mining Big Data, we plan to establish an energy platform, through which we should be able to establish new business models such as customized solutions for academia, industries, and the public sector.

Third, we will seek to maximize profits through overseas expansion and business diversification.

As of the end of 2016, we operated 36 projects in 24 countries including the UAE, the Philippines, and China, raking in KRW5.1 trillion in annual revenue. By 2025, we plan to increase the share of overseas revenue to 30%, seeking further diversification in terms of overseas markets (North America and Europe) and business models (new & renewable energy, convergence/integration, and new energy businesses).

Fourth, we will develop Bitgaram Innovation City into a world-class energy hub, attracting 500 energy firms, creating 30,000 jobs, and securing 105 core technologies by 2020.

We hope to create a virtuous cycle between people, businesses, and regional economies, which will eventually help us realize our goal of making Bitgaram Innovation City an energy mecca.

Finally, we will do our utmost to make the world a better place for all of its inhabitants.

Our 300 volunteer groups nationwide engage in a wide array of activities to give back to their communities, including supporting those who cannot afford electricity, and funding eye surgeries for the visually impaired. We also provide financing to select small firms, identify/nurture start-ups in the energy/power segments, and support small- to medium-sized enterprises (SMEs) in their efforts to tap into overseas markets. Looking ahead, we will continue our efforts to share growth with others, and strengthen communications with our customers and shareholders. Now, moving beyond our status as the world's top electric utility, we will spare no effort to lead the establishment of a new energy ecosystem.

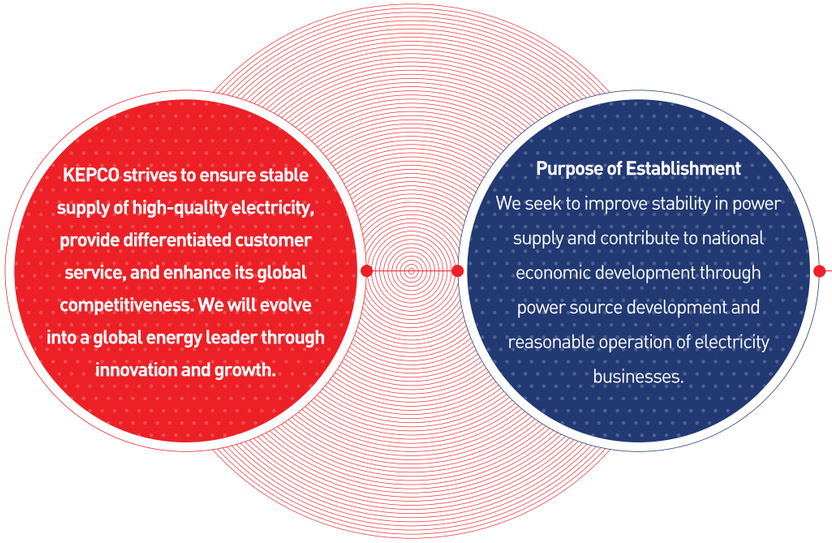
We hope to continue to receive your unwavering support as we endeavor to build a better energy future. Thank you.

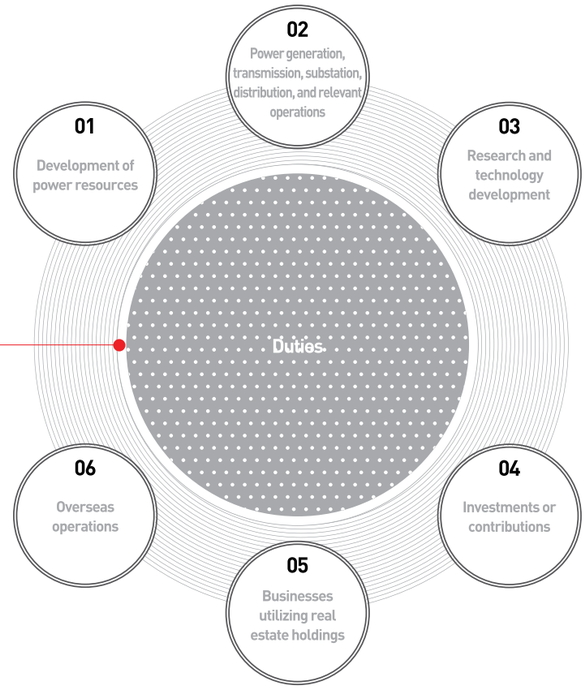
President and CEO

Hwan-eik Cho

02. MISSION

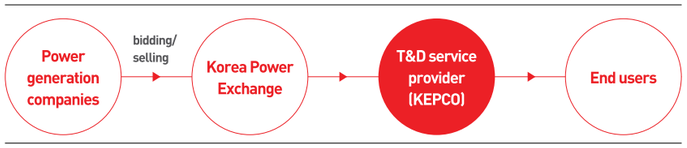
Evolving into a global company that will lead the future energy industry



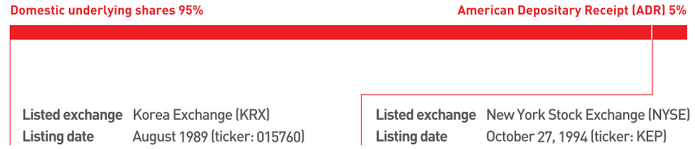


Name of Company	Korea Electric Power Corporation (KEPCO)
Date of Establishment	January 26, 1898
Major Businesses	Power supply (resource development, generation, transmission, substation operation, and distribution) and other related activities, including research, technology development, investments/contributions, businesses utilizing real estate holdings, and projects commissioned by the government. KEPCO supplies electricity to 22,940,000 households nationwide. In 2016, electricity sales totaled 497,040GWh, 54.3% for production, 32.4% for public services, and 13.3% for residential use.

Electricity market structure



Type of Corporation	Government-invested company
Paid-in capital	KRW4.1 trillion (USD 3.5 billion)
Stock Listing	



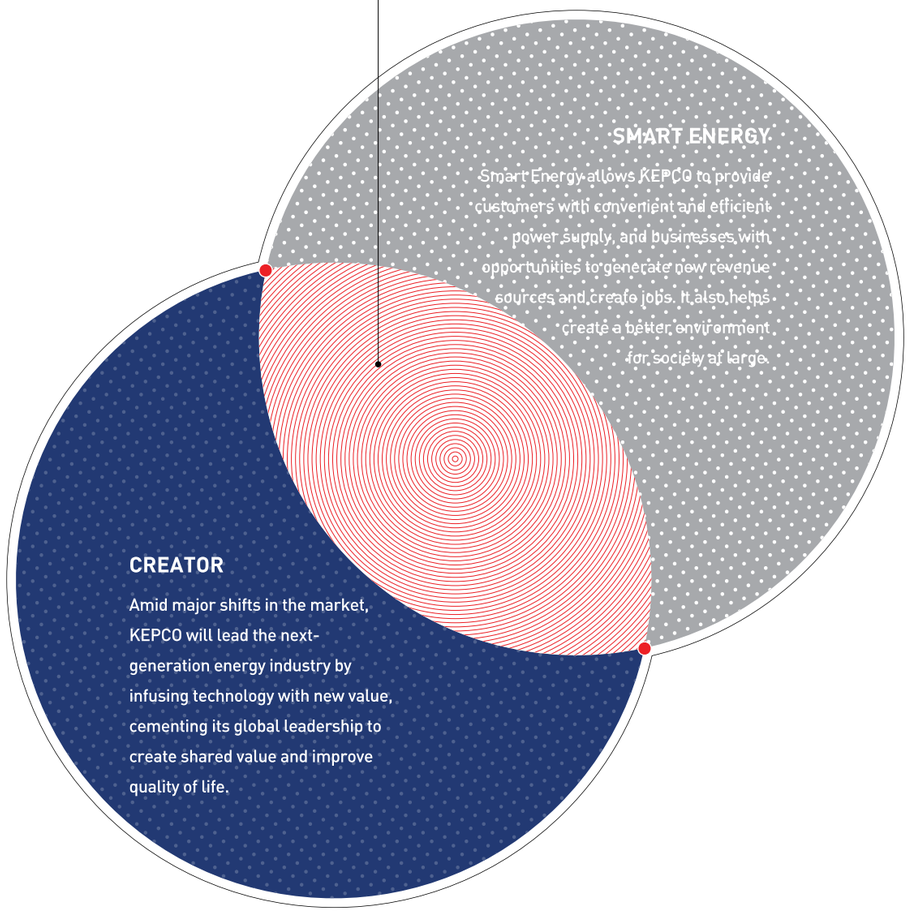
Number of Shares issued	641,964,077 (1 domestic underlying share = 2 ADRs)
Headquarters Address	55 Jeollyeok-ro, Naju-si, Jeollanam-do (Bitgaram-dong, #120), Korea
Phone	82-61-345-3114
Website	www.kepco.co.kr

03. VISION

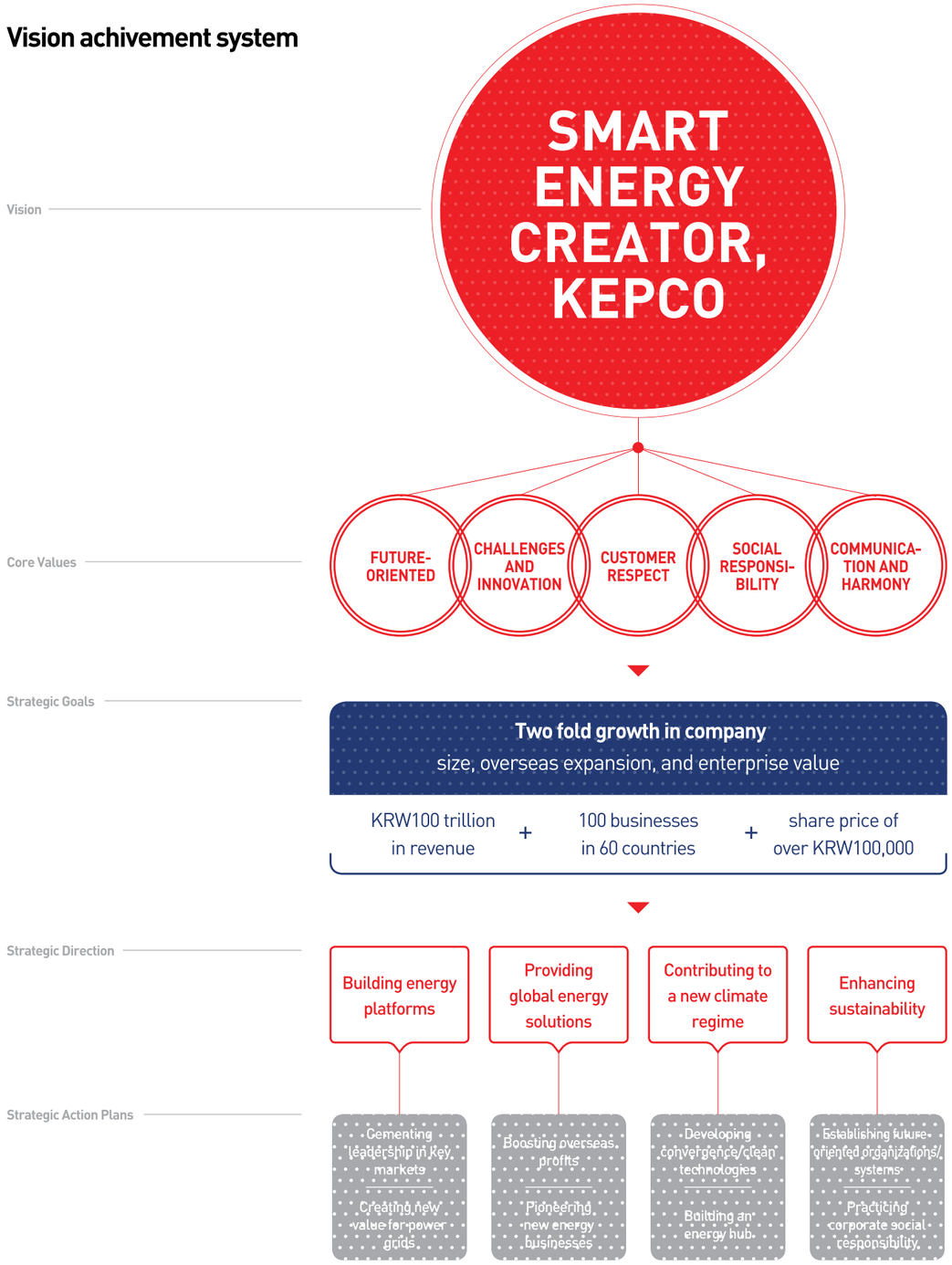
We create shared value for all players in the smart energy value chain, shaping the future of the global energy industry

SMART ENERGY CREATOR, KEPCO

Creating new value with creativity and convergence, and opening an era of clean and convenient energy



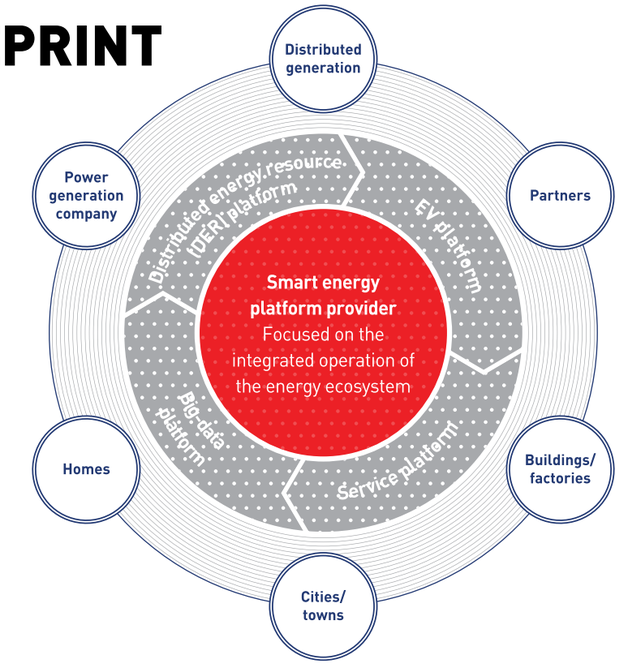
Vision achivement system



04. 2025 BLUEPRINT

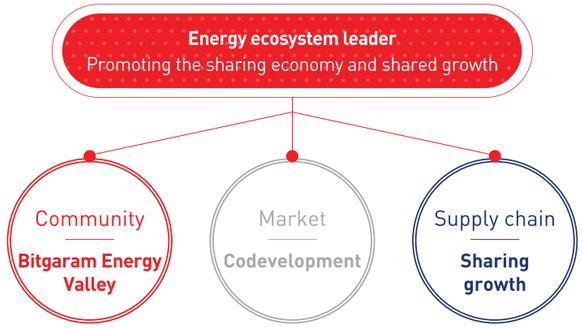
2025 Blueprint for domestic operations

Building energy platforms



2025 Blueprint for domestic operations

Leading the energy ecosystem



2025 Blueprint for KEPCO energy belt

Strengthening our foothold in overseas markets with comprehensive energy solutions

Building a global KEPCO energy belt

Expanding the KEPCO energy belt in growth markets

45 projects in **27 countries**
Overseas revenue of
KRW4 trillion

Expanding the KEPCO energy belt in developed markets

69 projects in **41 countries**
Overseas revenue of
KRW8 trillion

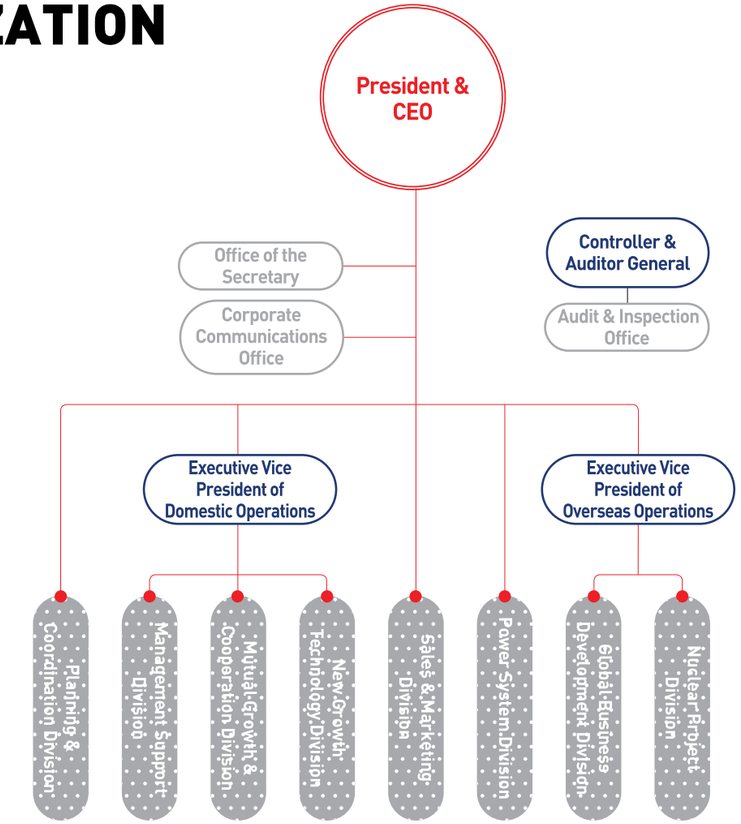
Completing the global KEPCO energy belt

100 projects in **60 countries**
Overseas revenue of
KRW27 trillion

05. ORGANIZATION

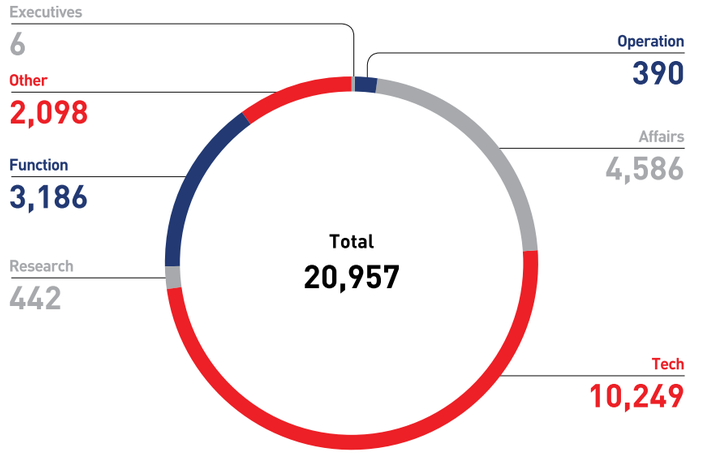
Organization

(As of end-April, 2017)



Employee Overview

(no. of staff, as of end-2016)



REVIEW OF OPERATION

By making full use of its world-class power grid operations and electricity data, KEPCO is pioneering new markets and promoting the development of the global energy to create Global Energy Utopia.

KEPCO HIGHLIGHTS

TOP
1st

The only electric utility firm among the top 100 companies in the Forbes Global 2000

OVERSEAS
36 projects

Carrying out 36 projects in 24 countries, ranging from power generation to power T&D and resource development

SMART ENERGY
3.59%

Achieved T&D loss rate of only 3.59% with high-efficiency equipment and intelligent power grids

BEST
99.99%

World-class normal voltage hold rate of 99.99%

OVERSEAS PLANT
7,965 MW

Constructing and operating overseas power generation facilities with total capacity of 7,965MW

GLOBAL
5.1 trillion won

Overseas revenue of KRW5.1 trillion, aided by aggressive overseas expansion

QUALITY
9.61 minutes

Provides high-quality power with per-household power outage of just 9.61 minutes

01 DOMESTIC

KEPCO's ICT-integrated services and comprehensive solutions bring everyone closer to the world of smart living.

LEADING NEW LIFE

01. DOMESTIC

KEPCO contributes to Korea's economic development by supplying stable and high-quality power. We strive to enhance national energy efficiency as well as our customers' quality of life by expanding power infrastructure and improving pricing systems. Going forward, we will continue our efforts to provide more advanced services by upgrading our energy management systems(EMS).

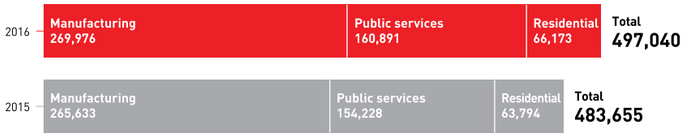
Delivering better customer services through system improvements

In 2016, KEPCO's electricity sales volume increased by 2.7% and sales revenue expanded 2.4% year-on-year, in spite of slowing economic growth at home and the global economic downturn. Last year, we revamped the controversial residential electricity pricing table, reducing the number of pricing tiers from six to three to make electricity more affordable for households. Moreover, we improved the electricity pricing system for educational facilities to help schools create a better environment for 20,000 students nationwide, especially during summer and winter. In addition, we have started to offer discounts to households with a pregnant woman, and greater discounts to socially/economically disadvantaged households.

Electricity sales volume (GWh)

Electricity sales revenue (KRW100 millions)

Electricity sales volume by usage/customer (GWh)



Our efforts to deliver stable power supply to 22,940,000 households annually have earned us the highest spot in the World Bank's "Doing Business" report in the power supply segment for three consecutive years. The report noted that KEPCO's services were among the most efficient in the world.

Maintaining the highest quality of electricity supply via cutting-edge distribution facilities

In 2016, KEPCO invested roughly KRW3.7 trillion to install 8,821c-km of distribution lines, 40,607 transformers, and 7,551 automatic distribution switches in a timely manner. Furthermore, in order to thrive during the Fourth Industrial Revolution, we are integrating AI into our facility management/maintenance practices and technologies. We have developed drones to reinforce our distribution line monitoring system, and established test beds in Daegu, Gwangju, and Naju to test Internet of Things (IoT) sensor-based distribution line diagnostics, facility monitoring, and self-diagnosis. Going forward, we plan to develop and test automatic self-diagnostic systems for distribution facilities by 2018, and augmented reality (AR) technology will be applied to manage those facilities. In addition, we have compiled data on the conditions of underground facilities, and developed a Big Data-based residual life prediction system for underground cables.

Meanwhile, KEPCO will play a pivotal role in the 2018 Winter Olympics to be held in Pyeongchang, Korea. To ensure stable power supply during the events, we have drawn up a task force operation plan involving power facility inspections and on-site monitoring at 12 major stadiums and 21 facilities. IoT-based real-time monitoring systems will be installed at key facilities, and uninterruptible power supplies (UPS) equipped with portable energy storage systems (ESS) will be installed for emergency recovery. Our constant pursuit of advanced technology allowed us to once again deliver impressive results in 2016, with per-household power outages of 9.61 minutes, a normal voltage hold rate of 99.99%, and a T&D loss rate of only 3.59%.

Drones for utilities inspections

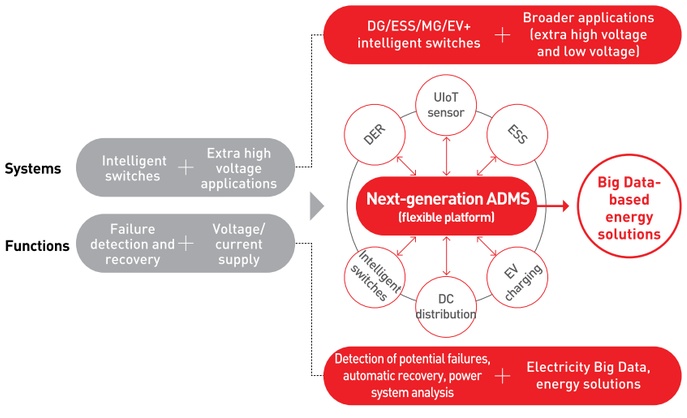
Building intelligent distribution systems for optimal operation

Since the introduction of the distribution automation system (DAS) in 1998, KEPCO has installed 102,009 intelligent switches as of 2016 (57.9% of all distribution line switches). DAS utilizes power grid operation technology and IT to monitor/control remotely located intelligent distribution switches, automatically identify fault sections, and collect line operation information such as voltage and current data. The DAS allows for optimal operation of power distribution systems through real-time monitoring and control of distribution line information from KEPCO's 41 distribution centers. This has enabled swift recovery from distribution line failures (less than three minutes), leading to the world's lowest per-household power outage levels.

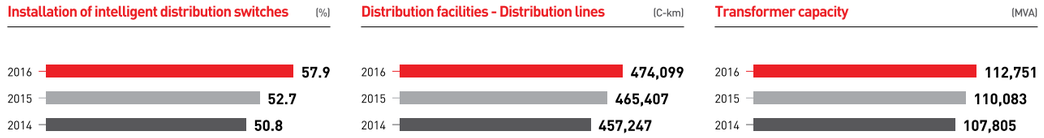
We are also developing the advanced distribution management system (ADMS), which we think will become a key driver of power distribution during the Fourth Industrial Revolution. ADMS, which integrates ICT such as AI, virtual reality (VR), AR, should help accelerate the launches of new energy businesses and Big Data-based integrated energy solutions.

Furthermore, we are actively bracing for next-generation power system technologies such as decentralized power supply and smart grids. Indeed, we have developed/applied new system operation technologies, including an intelligent distribution system that ensures uninterrupted electricity supply by automatically identifying fault sections. Going forward, we plan to raise our intelligent distribution rate from 57.9% to at least 90% by 2030 to meet growing demand for high-quality electricity, thereby achieving the highest possible power quality with zero system defects.

Intelligent Systems



1) ADMS: Advanced distribution management system that controls complex power distribution systems and provides Big Data-based solutions

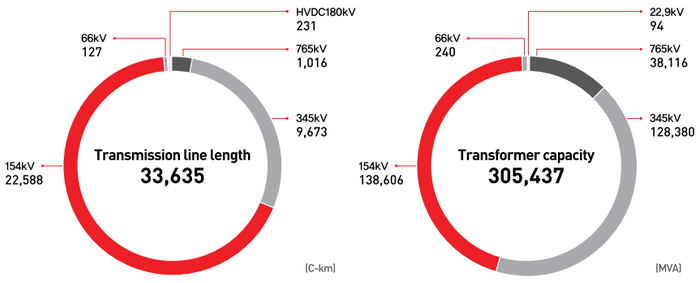


Timely expansion of transmission facilities/substations and improvements in construction project transparency

In spite of unfavorable business conditions, KEPCO was able to complete 75 new construction projects without delay—including the installation of 345kV transmission lines between Gunsan and Saemangeum—while adopting a more human- and environment-centric approach. As a result, our transmission/substation capacity exceeded 300 million kVA for the first time in 2016, 11 years after reaching 200 million kVA. This puts us shoulder to shoulder with top-tier power generators around the globe.

Furthermore, we have introduced various measures to improve the transparency of our construction projects and ease NIMBY opposition, including partnering with third parties and/or community residents in choosing sites for transmission facilities/substations. Looking ahead, we will continue our efforts to improve our power facility construction processes (including the installation of underground power lines), working to minimize conflicts with the communities in which we operate.

Transmission facilities/substations



02 R&D

We lead energy innovation with forward-looking insight, and create a cleaner, more convenient world through convergence, connectivity, and transparency.

LEADING NEXT GENERATION

02. R&D

Backed by outside-the-box thinking and a commitment to driving convergence, KEPCO is creating new value and preparing to lead the Fourth Industrial Revolution. We seek to maximize energy efficiency via the convergence of power generation/transport/consumption and ICT. As a Smart Energy Creator, we constantly challenge ourselves to create cleaner and more convenient energy sources.

10 key strategic technologies

01
Clean coal technology (ultra-supercritical CO_2/oxyfuel power plant)
An eco-friendly integrated gasification combined cycle (IGCC) plant that deploys ultra-supercritical CO_2/O_2 (instead of high-pressure, high-temperature steam) to generate power

02
Carbon capture, utilization, and storage (CCUS) technology
Technology that uses amines or solid absorbents to capture/condense/store/use carbon dioxide emitted before/after fossil fuel combustion

03
Offshore wind power generation
Supply of power through economically feasible development and stable system interconnection of offshore wind power energy

Creative & innovative Tech — 10 Key Strategic Technologies — Efficient & Smart Tech

04
High voltage direct current transmission system (HVDC)
Technology that uses high voltage direct current for long-distance, bulk transmission of electrical power; the system is mostly used to transfer power from renewable sources

05
New power equipment materials
Smart concrete that can sense of crack and recover itself graphene-based materials for high-efficiency energy conversion/storage systems; solar cells with enhanced optical absorption

06
Superconducting technology
Large-capacity, high-efficiency and eco-friendly superconducting power transmission lines/substations, aimed at overcoming the limitations of existing power grids ahead of future changes in the power industry

07
Smart grid
Next-generation power grids that achieve optimal energy efficiency through integration of ICT into existing power grids

08
Microgrid
A localized grouping of distributed energy resources for on-site power generation, storage and consumption

10
ICT convergence/integration
Convergence between power (power generation, T&D, sales, and consumption) and ICT (IoT, Big Data, and information security) to build new growth businesses

09
Energy storage system (ESS)
A technology for efficient peak load management and stable power generation from new & renewable energy sources

10 key strategic technologies for the development of creative and smart solutions

KEPCO is focusing on 10 key strategic technologies that will help us lead future energy technology paradigms, explore opportunities in new energy businesses, and define what it means to be a convergence/integration solutions provider. Looking ahead, we will continue to further advance technologies, conduct thorough analysis of power industry trends, secure future growth drivers to turn Korea into a global energy hub, and lead the development of the global electricity market.

Progress in 10 strategic technology development (2016)

No	Segment	Key strategic technologies	Outcome	Performance relative to top-class technologies
1	Superconducting	Verification of 80kV DC superconducting cables	Prototype development/verification of 80kV, 500MW, 500m DC superconducting cables	Superior
2		Development of compact 154kV superconducting fault current limiters (SFCL)	Report on grid operation of compact 154kV SFCL system; Operation of 154kV SFCL at extremely low temperatures	Superior
3		Design of 154 kV 3-phase SFCL	Design of 154 kV/1,700 A class 3-phase SFCL (integrating current limiting element, insulation, cooling, etc.)	Superior
4		Verification of 154kV AC superconducting cables	Prototype development/TR data compilation of 154kV AC superconducting cables	Superior
5	ESS	ESS engineering - governor-free (GF) control and automatic generation control (AGC)	Development of manuals for pilot operation of GF and AGC	Superior
6		Peak cut using ESS with uninterruptible power supply (UPS) functions	Development of algorithms for ESS-based peak cut technology for UPS	Superior
7		28MW battery energy storage system (BESS) for offshore wind farm applications	Design of large-capacity, ESS-linked power systems; design of 28MW ESS for the 80MW wind farm on the southwest coast	Superior
8	HVDC	HVDC #1 and #2 grid optimization technology	Report on HVDC #1, #2 system health assessment (power transfer, control, algorithm, oscillation stability, etc.)	Equal
9		Optimal technology of key systems for HVDC applications	Report on the impact of HVDC system on major power systems (HVDC power/voltage stability, voltage dip, harmonic resonance, etc.)	Equal
10	SG	Verification of high-speed communication device (between digital substations and next-generation supervisory control and data acquisition (SCADA))	Development of high-speed communication devices for SCADA; international standard certification (verification and demonstration, 100%)	Superior
11	MG	Stand-alone microgrid control/operation	Report on integrated microgrid operations on an island (Hybrid microgrid system on Geocha Island)	Equal

Technology development target by year (no. of technologies)

	-2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Target	43	11	15	20	28	17	25	26	18	23	22	248

Technology development target by category

(no. of technologies)

Clean coal	CCUS	Offshore wind power	HVDC	New material	Super-conducting	Smart grid	Microgrid	ESS	ICT convergence	Others	Total
24	28	18	15	17	31	42	25	28	18	2	248

Boryeong CCUS plant

Leading developer and distributor of greenhouse gas (GHG) reduction technology

Since the Paris climate conference (COP21) in December 2015, we have seen growing calls to reduce GHG emissions and increasing attention on ideas to tackle climate change. KEPCO has taken the lead in developing and distributing CO_2 reduction technologies in order to help Korea meet its carbon reduction target and enhance our competitive edge in the international carbon market.

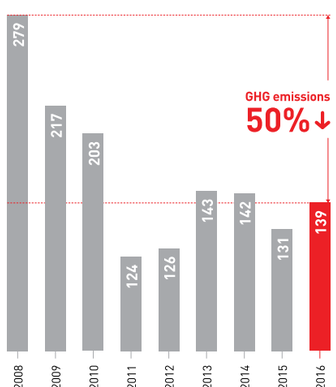
As part of such efforts, we have applied a high-efficiency SF_6 gas recovery/refining technology to power transmission/substation operations, cutting our GHG emissions by 800,000 tons per year since 2011, or by 50% from the 2008 level. SF_6 is commonly employed as insulation in high voltage power facilities. The technology has also been applied to power distribution systems since 2016. On the back of our success in the domestic market, we are now looking overseas to further broaden our footprint.

We are also a leading developer of carbon capture, utilization, and storage (CCUS) technology, which helps reduce CO_2 gas created during power generation. We have developed high-performance absorbents, testing and verifying them at the Boryeong (wet type, 10MW) and Hadong (dry type, 10MW) thermal power plants through 2,000 hours of continuous operation. Currently, we are actively seeking future technologies through 20 joint R&D projects related to clean coal and renewable energy technologies.

Looking ahead, we will continue to develop SF_6-free power facilities and solutions to climate change to lead Korea's carbon reduction efforts.

KEPCO GHG emissions record

(Source: Greenhouse Gas Inventory & Research Center of Korea/Unit: 10,000 tons of CO_2 eq.)



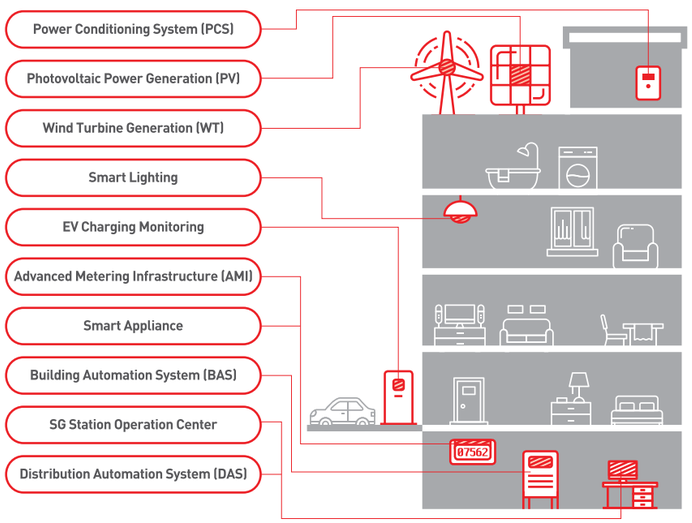
Smart grid expansion projects at home and abroad

A smart grid is a next-generation electrical grid that features a variety of ICT-based smart functions aimed at providing high-quality electricity while maximizing energy efficiency. From December 2009 to May 2013, KEPCO participated in the construction of the Jeju Smart Grid Verification Center, taking charge of business model development and standardization in intelligent T&D, consumers, transportation, new & renewable energy, and power services. Building on the experience as well as relevant technologies, the KEPCO consortium, consisting of 15 institutions and agencies, is now expanding the smart grid project nationwide, offering power and energy consulting services based on AMI (advanced metering infrastructure). The consortium plans to build customized business models in collaboration with participating municipalities in 2016-2018.

As of the end of 2016, we have installed KEPCO-building management systems (K-BEMS) in 116 KEPCO buildings nationwide to facilitate the utilization of ESS and new & renewable energy sources, putting forth successful energy conservation models for buildings. The system is now also being installed in factories and other buildings. In 2015, K-BEMS won two international awards (the ISGAN Award of Excellence and the GSGF Best Smart Grids Project Award). Building upon these achievements, we became the first Korean company to make a successful bid for a Dubai Smart Cities project. Now, we are forging plans to further expand our new energy businesses into overseas markets including the US and Latin America.

Looking ahead, we plan to lay the groundwork for the expansion of wide-area smart grids by 2020, build smart grids nationwide by 2030, and lead the growth of the global smart grid market in partnership with SMEs.

Smart grid station



Frequency-regulating ESS at Seo-Anseong substation

ESS expansion projects

In October 2013, KEPCO established an ESS business plan for frequency regulation, with the aim of developing new markets for ICT-based energy demand management. In December 2014, we installed 52MW-scale ESS in substations in Seo-Anseong and Shin-Yongin as part of our ESS pilot project, and commercial operations began on July 1st, 2015. We added 184MW in 2015 and 140MW in 2016, and plan to gradually expand capacity to up to 500MW by 2017. Of note, upon its completion in 2017, the 48MW-scale frequency-regulating ESS under construction at the Gimje substation will boast the world's largest capacity among indoor systems.

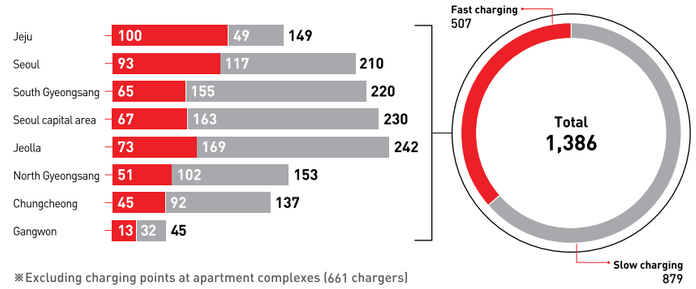
In order to control frequency variations and improve operational efficiency of power generation facilities, we install and operate large-capacity rechargeable batteries (with charging and discharging functions) and power conditioning systems (PCS) near substations. We are aiming to fully utilize power generator output by using ESS (in lieu of low-cost plants) to furnish frequency regulation reserves. And once total ESS capacity reaches 500MW, electricity purchase costs should be lowered significantly. ESS should also help relevant new energy industries build ecosystems, create jobs, and expand overseas.

Facilitating growth of EV industry by building EV charging infrastructure

KEPCO has taken the lead in building domestic EV infrastructure, developing Korea's first fast charger for EVs. Under the Star Network project, an initiative to construct EV charging infrastructure nationwide, we have installed a total of 1,711 stations as of 2016, including 309 small chargers in urban areas (up from a total of 336 stations in 2015), thereby supporting EV proliferation and facilitating growth of relative industry.

In 2017, we aim to install an additional 500 small-sized chargers in urban areas, form part-

EV charging infrastructure (as of end-December 2016)



※Excluding charging points at apartment complexes (661 chargers)

nerships with hypermarkets and Korea Railroad to build large-sized charging stations, and expand home charging points by extending our reach to up to 4,000 apartment complexes.

Achieving energy self-sufficiency via microgrids

Self-sufficient island, Gasa Island

A microgrid is an eco-friendly local energy grid with control capabilities, which means it can be connected to external grids, or operate autonomously. It utilizes EMS to control ESS and new & renewable resources. Since 2011, KEPCO has successfully collaborated with Jeju Province and Korea Southern Power Company (KOSPO) to make Gapa Island(Jeju Province) carbon-free. In 2014, we helped Gasa Island (South Jeolla Province) achieve energy self-sufficiency via the installation of an optimized EMS. We are also taking part in a pilot project for the development of a self-sufficient green energy island (Ulleung Island). The project is part of the government's initiative to build stand-alone microgrids that harness solar, wind, and geothermal energy in convergence with ESS to replace cost-prohibitive diesel power generation and cut GHG emissions on islands. For this project, we established an SPC with other companies and the municipality. Moreover, we have provided support to relevant companies to ensure that the five islands chosen by the Ministry of Trade, Industry and Energy in 2015—Deokjeok, Jo, Geomun, Sapsi, and Chuja—achieve energy self-sufficiency. Furthermore, we have successfully completed a microgrid demonstration project in Penetanguishene, Canada. Building on this success, we are planning further expansion into other overseas markets, including Maryland in the US. Going forward, we will make continued efforts to broaden our global footprint in microgrids and energy self-sufficient islands, in partnership with other domestic firms.

Developing superconducting power equipment and HDVC technology

Superconducting cables are being touted as a promising alternative to copper cables for electric power transmission, as they can carry five times more current with less than 50% power transmission loss. Following the successful verification of 23kV superconducting cable technology, KEPCO has embarked on the installation of 1km-long superconducting cables connecting the Shingal substation (154kV) to the Heungduk substation (23kV).

HVDC-GCCIA valve

The project, the world's first commercial use of superconducting cables in power systems, was launched in November 2015 and will end in 2018, with a total of KRW11 billion in planned investments. Our verification project included: 1) the application of 500-meter, 80kV DC superconducting cables to power grids (2014), and 2) the installation of 1km-long, 154kV AC superconducting cables on Jeju Island (2015). Additional tests were conducted in March-October 2016, allowing us to secure the world's most advanced technology and broadest experience in this field, as well as the ability to operate 1km-long, 154kV, 600 MVA class superconducting cables.

Meanwhile, in order to develop high voltage direct current (HVDC) system transmission technology, we completed ±500kV single bipole verification tests in areas such as optimal bundle selection, insulation design, and electric environment in 2015. Based on this, we launched ±500kV double bipole verification tests in 2016. Once the tests are completed, we will become the first company in the world to hold ±500kV double bipole technology. Alongside these efforts, we have partnered with other domestic companies to secure HVDC conversion technology and domestically produce relevant equipment and materials. In addition, we plan to build HVDC transmission infrastructure in the Bitgaram Energy Valley, which should help turn the area into a global new energy hub.

Electricity Big Data Center to increase accessibility of information

Faced with growing calls from the private sector to share electricity consumption data, KEPCO introduced the Electricity Big Data Center in September 2016. Electricity information had long been held exclusively by KEPCO for the purpose of calculating tariffs, but other firms seeking to provide more energy choices to consumers and create new business models (e.g., energy consulting services) have been demanding greater access. By increasing the accessibility of our data, we seek to facilitate growth of the new energy industry, and promote greater freedom of information, and life convenience.

For the operation of the Electricity Big Data Center, we entered into MOUs with three major telecom networks and the Big Data Institute of Seoul National University. Information available on our data center's website includes, among others, 10 key electricity metrics such as domestic consumption by usage, five major reports (including a comprehensive paper analyzing changes in consumption over the past decade), and a map denoting nationwide electricity consumption by region/household. All in all, since its launch, the website has provided a great deal of information under 129 categories, including daily demand forecasts. Furthermore, the center collected, processed, and delivered electricity data on 12 occasions at the request of other authorities.

In 2017, the center plans to provide electricity data for the development of Big Data-based public service models, and for verification projects aimed at the development of private sector services. Moreover, it will build a web portal to further increase data accessibility.

Advanced metering infrastructure (AMI)

AMI is a system that measures, collects, and analyzes energy usage, communicates with metering devices, and controls electricity. It induces demand response from consumers by delivering electricity prices and consumption information in real time, while enabling suppliers to accurately predict demand and manage power load.

Under the government's smart grid master plan, KEPCO is expanding AMI with the aim of providing smart power services to all of our 22.9 million customers by 2020. As of the end of 2016, AMI supports approximately 3.3 million homes, and the number is expected to rise to 4.5 million in 2017. As time-of-use pricing information, consumption data, etc. are communicated to customers in real time, the system is anticipated to incentivize customers to shift usage to off-peak hours, and facilitate more stable power supply.

In addition, AMI can improve efficiency in transformer load management and voltage monitoring, thus enhancing power quality. Looking ahead, we will continue to expand AMI-based services such as remote load shedding / restoration and emergency power safety measures. The services should also benefit customers, as they will be allowed to change inspection schedules at will.

ICT Center

New technology development via ICT convergence

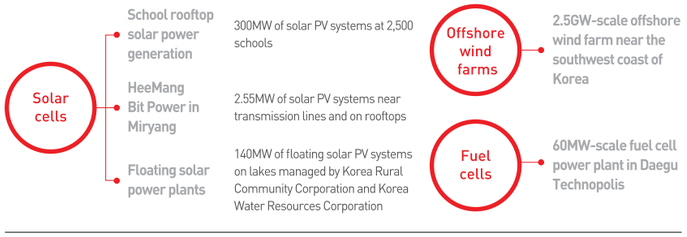
KEPCO is preparing to lead the Fourth Industrial Revolution by creating new technologies through the convergence between power generation and ICT. In 2015, we launched R&D projects related to technical standardization and platforms to lay the technological groundwork for IoT in the power industry. We built an IoT-based power facility monitoring system in 2016, and have collaborated with municipal governments to provide a social safety net to disadvantaged groups utilizing IoT technology. Furthermore, we built a Big Data platform to analyze a large quantity of electricity data compiled from various internal/external systems, which has helped us make more informed projections and decisions. In 2017, we will continue to develop technology and make investments to accelerate ICT convergence involving AI, robots, and drones, in order to successfully ride the next big wave of industrial innovation.

Meanwhile, in 2016, we embarked on a project to build a software cluster for the new energy industry in collaboration with Gwangju and South Jeolla Province. Looking ahead, we will strengthen technological alliances with small- to medium-sized software firms, attract software developers to the Bitgaram Energy Valley, and provide support to industry experts, thereby sharing growth with relevant industries.

New & renewable energy business

Under its fourth New & Renewable Energy Master Plan, the Korean government is pursuing two main goals: increasing the share of new & renewable energy in total energy to 11% by 2035, and satisfying at least 10% of the nation's energy needs with new & renewable sources by 2023 in accordance with the Renewable Portfolio Standard (RPS).

New & renewable energy projects



Notably, KEPCO has steadily increased green energy investments to achieve our renewable energy goals in line with these government efforts. In June 2015, we incorporated HeeMang Bit Power, which engages in solar power generation operations in Miryang, and are working with local residents to ease concerns over the construction of power facilities. For our school rooftop solar power generation project, we established an SPC with six power generators in June 2016, and plan to install 300MW of solar power capacity at 2,500 schools by the end of 2017. We have also partnered with the aforementioned six power companies to develop a 2.5GW-scale offshore wind farm near the southwest coast of Korea. Moreover, as part of our efforts to foster future growth drivers, we established Daegu Clean Energy, an SPC, to build a 60MW-scale fuel cell power plant in Daegu Technopolis. Building upon these broad experiences in pioneering advanced technologies through R&D and verification projects, we are actively seeking out new business opportunities at home and abroad.

Open R&D to enhance technological competitiveness

KEPCO has introduced an open R&D platform to enhance competitiveness and develop new technologies through technological convergence. The open R&D process will involve identifying R&D projects with the potential to meet key needs, commissioning the projects to outside expert groups, and then providing funding to secure core technologies.

Six projects will be farmed out in 2017, and a total of KRW16.4 billion will be invested over three years to fund technology development by partnering universities and research institutes. Through the projects, we plan to secure core technologies related to new energy businesses, power grid efficiency improvements, and ICT convergence/integration.

Around 25% (or KRW47 billion) of this year's R&D budget (KRW192 billion) will be allocated to open R&D projects, with the proportion gradually climbing to up to 50% over the long term.

Looking ahead, we will continue to look for new ideas and develop innovative technologies to consistently provide our customers with high-quality, safe, and reliable electricity supply.

Open R&D projects and partners

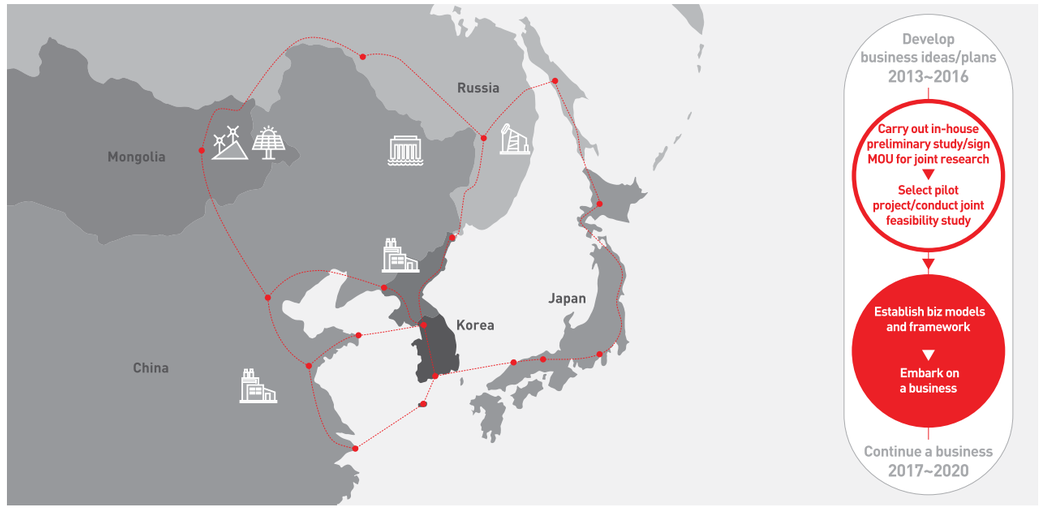
Projects	Partners
Developing a clean power-generation system using an electromagnetic wave plasma torch Producing hydrogen using plasma application technology, and utilizing the hydrogen for fuel cell-based power generation	Ajou University
Developing technology and business models for recycling solar PV module waste Technology to extract copper, silver, and silicone from solar PV module waste	Wongwang Electric Power
Developing 20Wh battery unit cells utilizing seawater Seawater-based battery packs for energy storage devices	Ulsan National Institute of Science and Technology
Developing 22.9kV power cables made of graphene/metal wires Power cables that can carry two times more current than copper cables; as thick as copper cables but lighter	Sungkyunkwan University
Developing power Big Data on Cloud (POBIC) for real-time data analysis Processing and reproducing power Big Data	ITian
Developing VR-based training simulation systems Applying VR technology to train T&D sector employees	Tekville

Super grid projects in Northeast Asia

KEPCO is actively carrying out super grid projects in Northeast Asia to foster energy cooperation within the region over the medium to long term. A super grid is a wide-area electricity transmission network that interconnects continents, thereby earning economic profits and facilitating the efficient use of renewable energy sources located in distant areas.

We signed an MOU with Russia for a preliminary feasibility study on Korea-Russia power grid interconnection in 2015. In March 2016, we also signed an MOU with China, Japan, and Russia to cooperate on research and planning for an interconnected power grid spanning Northeast Asia. In 2017, the projects will likely move on to the next stage, with the launch of multilateral joint research efforts and the establishment of business models. Looking ahead, super grids are widely anticipated to become one of our key growth drivers, and contribute to regional peace and prosperity.

NE Asia super grid roadmap



03 OVERSEAS

KEPCO is creating a new future for the global energy ecosystem by building an energy network that links Asia with North America, Latin America, and Africa.

LEADING THE WORLD

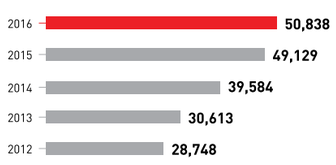
03. OVERSEAS

In 2016, KEPCO was named the best electric utility in the Forbes Global 2000. Indeed, we have been stepping up our overseas expansion efforts with the aim of generating 27% of our revenue from outside of Korea by 2025. Our projects in various fields have helped us develop sustainable new growth drivers, and are bringing us closer to achieving our ambitious goal of completing a global energy belt.

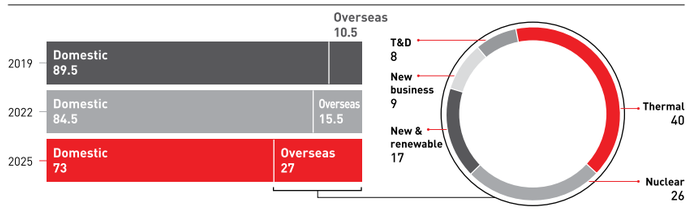
Building a global energy belt

At the end of 2016, KEPCO was operating a total of 36 energy projects in 24 countries, in various segments including thermal power, nuclear power, new & renewable energy, T&D, and resource development. Our global operations include low-carbon, high-efficiency energy businesses (clean coal power plants, etc.), as well as existing cash cow businesses such as the construction/operation of conventional coal-fired and nuclear power plants. Moreover, we are actively developing new business models in step with the long-term energy market trend of convergence/integration, and are striving to build a global energy belt by increasing our global clout in new & renewable energy.

Overseas revenue (KRW100 millions)



Overseas revenue breakdown (%)



Diesel plant in Amman, Jordan

Power plant in Cebu, Philippines

Seeking revenue growth through expansion in overseas power markets

KEPCO has built a strong presence in Asia as an Independent Power Producer (IPP). We are operating 17 power generation projects, with total power capacity of 23,644MW (stake: 7,965MW), in thirteen countries including the Philippines, China, Middle Eastern nations, and Mexico. In the Philippines, we successfully completed our first overseas power generation project, which involved the rehabilitation, operation, maintenance, and management (ROMM) of the 650MW Malaya Thermal Power Plant. In the country, we are now generating stable revenue streams through efficient operation of the 1,200MW combined-cycle plant (CCP) in Ilijan and the 200MW coal-fired power plant in Cebu.

In Shanxi, China, we are participating in seven mining projects as well as power generation projects with a total capacity of 8,820MW, in partnership with Gemeng International. In Inner Mongolia, Liaoning, and Gansu, we are operating 1,017MW wind power plants jointly with China Datang, and are constructing new facilities which will increase wind power capacity by 297MW.

In Vietnam, we are finalizing contract negotiations on financing/EPC terms, with plans to start construction in the first half of 2017.

Overseas power generation facilities

Source of power		No. of projects	Capacity (MW)		Share (%)	
			Installed	KEPCO	Installed	KEPCO
Nuclear		1	5,600	1,008	24	13
Thermal	Coal	5	11,200	4,013	47	50
	Diesel	2	1,777	826	8	10
	Gas	5	3,606	1,466	15	19
	Sub-total	12	16,583	6,305	70	79
New & renewable		4	1,461	652	6	8
Total		17	23,644	7,965	100	100

Successful entry into North America and Africa

Building upon its successes in the Middle East and Latin America, KEPCO has further expanded its overseas service reach, entering North America and Africa. Now, we compete head to head with top-tier global companies in the construction and operation of large-scale power plants.

Since 2008, we have won a series of projects in the Middle East, including: the 373MW Al Qatrana CCP plant in Jordan, the 1,204MW Rabigh heavy oil power plant in Saudi Arabia, the 1,600MW Shuweihat S3 CCP plant in the UAE, and the 573MW IPP-3 diesel plant in Amman, Jordan. Notably, the Rabigh heavy oil power plant and the Shuweihat CCP plant were completed in 2014, and the Amman diesel plant in 2015, confirming our superior technology and project execution capabilities. Meanwhile, in Latin America, we successfully completed the 433MW Norte II Gas CCP plant in Mexico in 2013.

(Top) UAE nuclear reactor construction site / (Bottom) Groundbreaking ceremony for #3 nuclear reactor in Barakah, UAE

Nuclear reactor in Barakah, UAE

In 2016, we secured a foothold in North America by forging an agreement to acquire a stake in a 30MW solar PV power plant in Colorado (US). Furthermore, we made inroads into Africa's IPP market as the preferred bidder for the construction/operation of the proposed 630MW power plant in Thabametsi, South Africa.

In Jordan, together with the Al Qatrana plant and the Amman IPP-3 diesel plant, our 89.1MW Fujeij wind farm (under construction since February 2017) should satisfy around 24% (1,035MW) of the country's power supply needs (roughly 4,300MW in total).

Strengthening overseas presence with the UAE nuclear power project

Since 2009, KEPCO has collaborated with the Emirates Nuclear Energy Corporation (ENEC) to provide nuclear power supply. In October 2016, we signed a joint venture (JV) agreement with ENEC to secure investment returns through the stable operation of nuclear reactors. We believe that our 40 years of experience in nuclear power generation, world-class electricity quality, and strong credit record in the international financial market helped us secure the deal. The agreement also changed the nature of the relationship between KEPCO and ENEC, from contractor-contractee to a partnership. Looking ahead, we are determined to execute the JV agreement successfully, thereby proving our superior project execution capabilities and securing more overseas nuclear power projects.

Thorough process control for the construction of the UAE nuclear power plant

In December 2009, KEPCO won a UAE nuclear power plant construction project, its first-ever overseas nuclear power project. Since breaking ground in 2011, the project has proceeded as scheduled: high temperature testing for the Unit 1 reactor was completed in October 2016, and the percentage of completion of the four units stood at 76% as of the end of 2016.

Performance

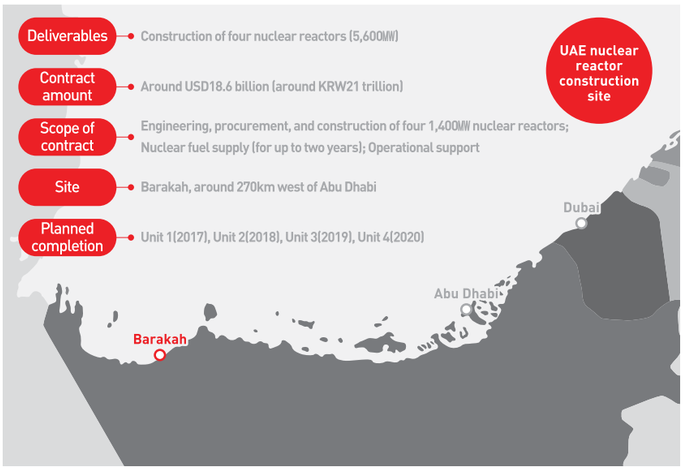
(KRW100 millions, %)

classification	2016			Year-on-year		
	Goal	Actual	% of goal	2015	Change	Change (%)
Revenue	33,322	**37,972**	114.0	34,478	3,494	10.1

Revenue KRW**3,797.2** billion up KRW349.4 billion year-on-year, or +10.1%

As of the end of 2016, the percentage of completion of the four units stood at **76.14%**

Overview of UAE nuclear power project



UAE nuclear reactor construction project timeline

2009	2011	2012	2013	2014	2015	2016
Launch	Excavation and grading	Concrete pouring for Unit 1	Concrete pouring for Unit 2	Unit 1 installation Concrete pouring for Unit 3	Unit 1 energization, Unit 2 installation, and Unit 4 concrete pouring	High temperature and water pressure testing for Unit 1, energization for Unit 2, installation of Unit 3

Overseas diversification through T&D projects

KEPCO's T&D business has been undergoing increasing diversification. As of the end of February 2017 We have finished T&D consulting projects in the Philippines, Myanmar, Indonesia, Libya, Egypt, Paraguay, and Uzbekistan, with an additional 20 projects underway in 16 countries. Total T&D orders received to date amount to approximately USD380 million.

In 2016, we won several intelligent grid projects, including the construction of a smart distribution network in the Dominican Republic and an intelligent substation in Bhutan. These projects should serve as test beds for our new energy business capabilities. In various parts of the world, new energy technologies (e.g., smart grids, microgrids, and ESS) should become useful tools in our efforts to further expand our global reach.

Going forward, we will continue to generate high value-added growth by developing new energy business models, and build cooperative relationships with domestic SMEs in our efforts to expand overseas.

Solar power plant in Colorado

Streamlining overseas resource development

Since 2007, KEPCO has invested around KRW1.6 trillion in overseas resource development (five soft coal mining projects, and five uranium projects) to secure stable fuel supply for power generation. In December 2016, however, we sold most of our overseas resource assets to Korea Hydro & Nuclear Power and five other power generation companies, in line with government initiatives to streamline the operations of state-owned energy firms. Meanwhile, our stake in the Bylong mine in Australia will be sold in phases, in light of licensing and development schedule issues.

Gaining global recognition in new & renewable energy

KEPCO started wind farm operations in Gansu, China in September 2005. As of the end of 2016, our wind power generation capacity in Gansu, Inner Mongolia, and Liaoning (installed and planned), amounted to 1,314MW.

In 2013, we signed an agreement for the construction/operation of an 89MW wind farm in Fujeij, Jordan. Construction began in December 2016, one year after an power purchase agreement was signed, and will end in October 2018. The project, in which we hold a 100% stake, is the first overseas wind power generation business in which we have participated from the outset (i.e., the development stage). It also laid the groundwork for further expansion in the global wind power IPP market. In April 2016, we embarked on our first overseas solar plant project in Chitose, Japan (28MW). In August of the same year, we made our first foray into the world's largest power market, the US, by acquiring a 30MW solar power plant in Colorado.

Looking ahead, we will strive to further diversify our business portfolio, expand our global footprint in partnership with domestic firms to boost exports, thus leading global new & renewable energy growth.

Groundbreaking ceremony for Chitose solar power plant

Building a position in overseas new energy markets

With the arrival of the Fourth Industrial Revolution and paradigm shifts in the global energy industry, new energy businesses are widely anticipated to grow rapidly. As such, KEPCO is taking steps to secure early-mover advantages in global new energy markets.

In 2016, we won 11 projects in the new energy segment. Of note, the microgrid demonstration project in Canada marks our first microgrid operation in North America. Furthermore, the verification projects in Peru and Ecuador may lead to additional new energy projects in the future. As an early mover in new energy, we will continue to demonstrate our commitment to developing businesses in Asia, the Middle East, and Africa, thus leading global market expansion.

In addition, we will further diversify our new energy business portfolio by exploring opportunities in undeveloped segments, as well as in convergence and other areas, and by developing highly profitable, customized business models. Moreover, we will strengthen partnerships with domestic firms as we venture abroad, making strategic efforts to procure domestically produced materials and equipment.

Wind farm in Inner Mongolia, China

Overseas performance of KEPCO

(As of end-2016)

Revenue
KRW **5.1** trillion in 2016

Projects
36 projects in 24 countries

KEPCO capacity
7,965 MW overseas power plants in construction/operation

Nuclear
1 project in **UAE**

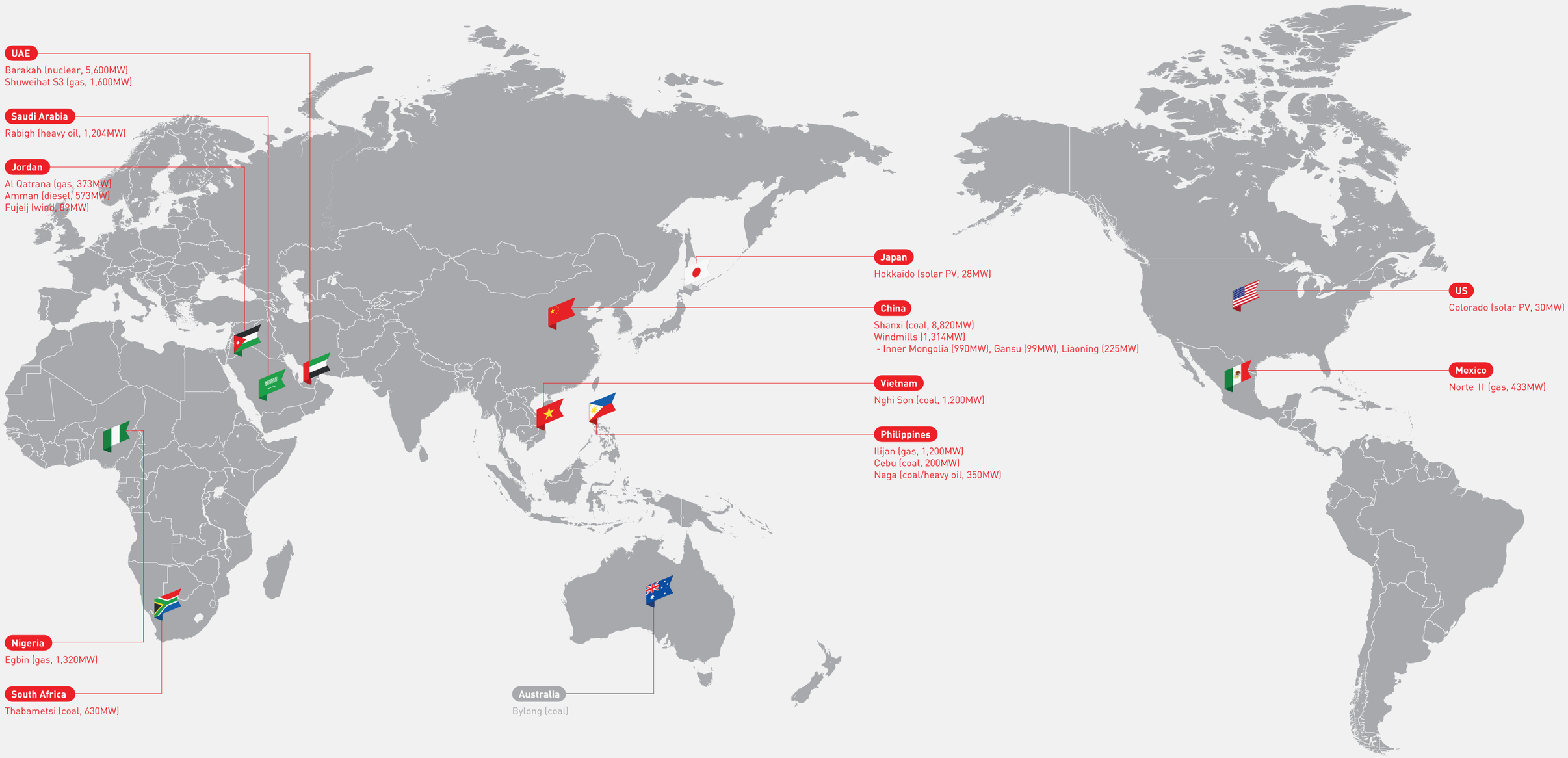
Thermal
12 projects in **9** countries

New & renewable
4 projects in **4** countries

T&D
18 projects in **15** countries

Resource Development
1 project in **1** country

Power Generation Resource Development



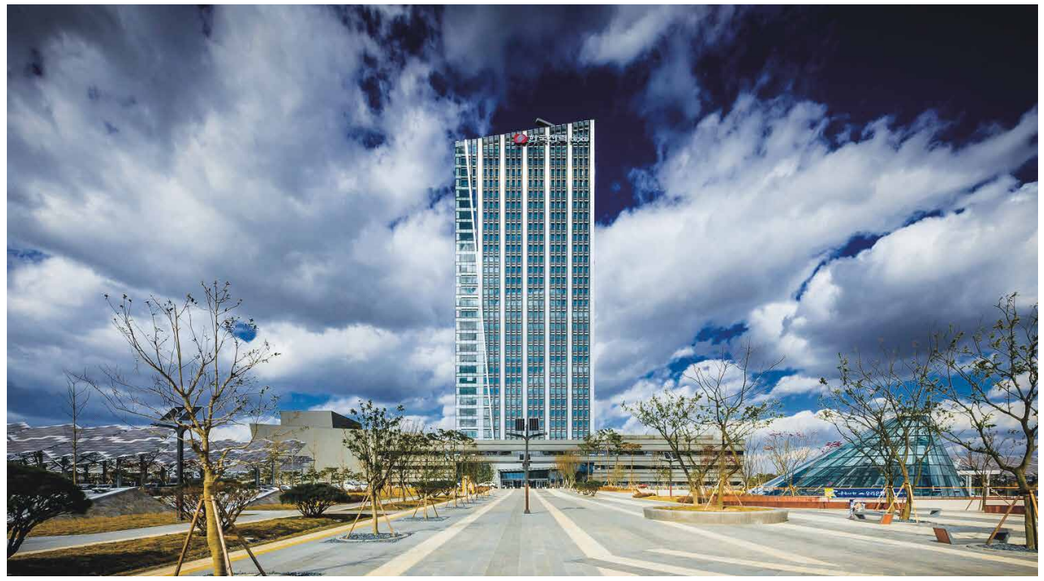
04 CSV

KEPCO will light up the future by creating shared value and taking steps to foster harmony and communication

LEADING NEW VALUE

04. CSV

Since relocating to Bitgaram Innovation City, KEPCO has been working to establish a new energy business ecosystem designed to produce new value and nurture innovation. Moreover, we are striving to set an example as a public enterprise, strengthening cooperation with SMEs and deploying responsible management practices.



Bitgaram Energy Valley, the center of the global energy belt

Since relocating to Naju Bitgaram Innovation City in December 2014, KEPCO has made dedicated efforts to establish the Bitgaram Energy Valley. We are luring new energy-focused businesses and research institutions to the Valley to create an ecosystem for future-oriented industries.

With the goals of attracting 500 energy firms, creating 30,000 jobs, and securing 105 core technologies by 2020, we seek to revitalize the regional economy to achieve more balanced economic growth nationwide, and to identify new growth drivers.

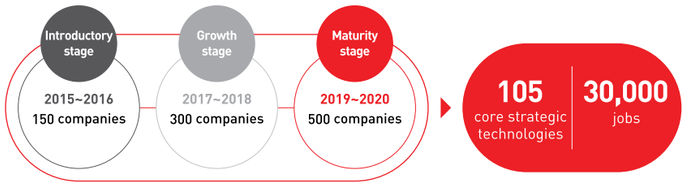
Between March 2015 and the end of 2016, 177 firms moved or agreed to move to the Valley, far exceeding our initial goal of 150 businesses. As a result, a total of KRW815 billion has been invested, and 5,658 jobs have been created. Among the 103 firms that have delivered on their investment commitments, 57 have already settled in Naju Bitgaram Innovation City or nearby industrial complexes.

Our plans for Bitgaram Energy Valley go beyond simply attracting businesses. Indeed, our support for businesses come in many different forms, including funding, sales channels, talent development, R&D infrastructure (in partnership with academic and industrial circles), new energy technology development, and shared growth with the community.

Our achievements and contribution to the development of regional and national economies were recognized in September 2016 with a Presidential Award. Notably, among the 154 public institutions/enterprises that have relocated from Seoul to other cities, KEPCO was the only one to receive such an honor.

In 2017, we will continue to make efforts to turn the Bitgaram Energy Valley into a global energy hub. We have already set an ambitious goal of increasing the number of businesses in the Valley to 250. Moreover, we will endeavor to attract large-scale investments from big corporate groups and foreign investors to accelerate growth of the Valley. And we will encourage companies still deliberating on potential investments to take the plunge.

Bitgaram Energy Valley roadmap



Performance

classification	New energy	Power equipment	Others	Total
No. of companies	139(79%)	35(20%)	3(1%)	177

Investment (KRW100 million)	No. of employees
8,150	5,658

(Investment commitment) 177 companies: 139 new energy firms (79%)

classification	Investment executed (by stage)				Investment planned	Total
	Land purchase	Factory construction	Operation	Subtotal		
No. of companies	18	28	57	103	74	177

(Investment executed) 103 companies (58%)

Giving back to the community

As a public corporation, KEPCO develops and implements a wide array of programs to give back to the communities in which we operate. Our programs supporting corporate social responsibility (CSR) include: electricity tariff discounts to physically/mentally challenged individuals and low-income households, energy vouchers, aid for unpaid bills of low-income and employee volunteering programs.

We also supply solar power generation systems to social enterprises and socially/economically challenged households free of charge, run programs at juvenile detention centers to help troubled youth become licensed electricians, and replace lights/street lamps with high-efficiency lights at selected villages and hospitals (including Sorokdo National Hospital). Furthermore, we help create youth employment opportunities through youth venture capital funds, and assist social enterprises (cooperative associations, etc.) in their efforts to find overseas sales channels.

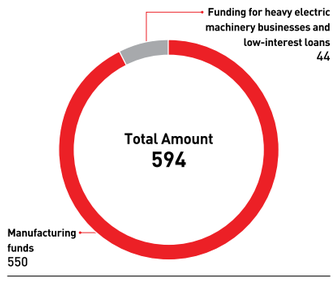
In 2016, we doubled tariff discounts for those in need, and eased the eligibility requirements for our energy voucher program. Going forward, we will continue our efforts to more actively reach out to people who are unable to pay their electricity bills.

Sharing growth with SMEs

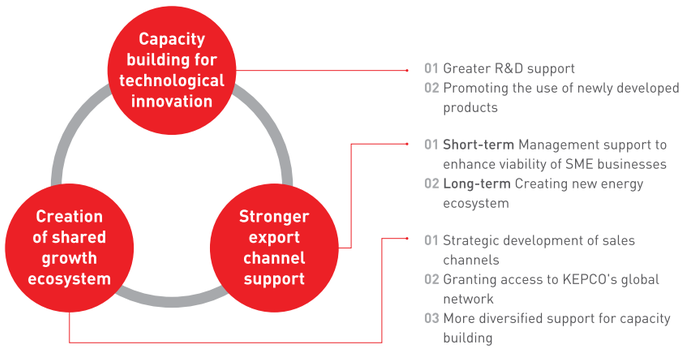
In 1993, KEPCO become the first public corporation to form a division dedicated to promoting partnerships and cooperation with SMEs. After relocating our headquarter in 2014, we established another division to more systematically support SMEs, aiding them with exports and/or overseas expansion.

Recently, we have redefined our mission from "stable power supply" to "creating an ecosystem for the sharing economy," so as to better adapt to changing market conditions amid the Fourth Industrial Revolution and growing new energy demand. And we have established/implemented three key strategies to achieve this mission: 1) capacity building for technological innovation, 2) creation of an ecosystem for shared growth, and 3) stronger sales channel support for exporters. More specifically, our capacity building programs for SMEs include R&D support, promotion of newly developed products, and technology transfer. Our efforts to build a shared growth ecosystem are represented by the Bitgaram Energy Valley, in which we plan to establish an energy cluster. As part of such efforts, we

Support for shared growth in 2016 (KRW100 millions)



Three strategies for shared growth



opened the Bitgaram Creative Economy Innovation Center, and introduced a KRW20 billion program to systematically cultivate start-ups, with the goal of fostering 300 start-ups by 2020. To facilitate exports, we granted a total of 125 SMEs the right to use the KEPCO Trusted Partner brand, and we opened SME Product Promotion Halls in the Philippines and Vietnam. Overall, our market development efforts for SMEs resulted in USD340 million worth of exports by SMEs.

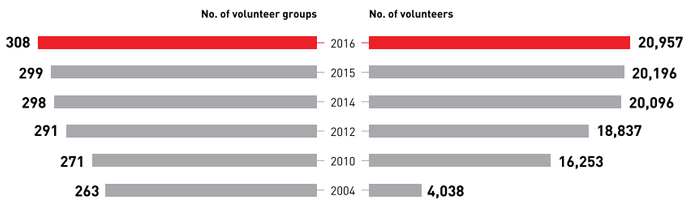
By strengthening cooperation and sharing growth with SMEs, we seek to realize our 2017 vision of overcoming obstacles with resilience and strength and moving forward to create new value, thereby further growing into a global energy leader.

KEPCO Volunteer Group

The KEPCO Volunteer Group, which is comprised of 20,000 employees from 300 branches nationwide, engages in a wide array of social contribution activities under the slogan of "Light to the world, love to neighbors."

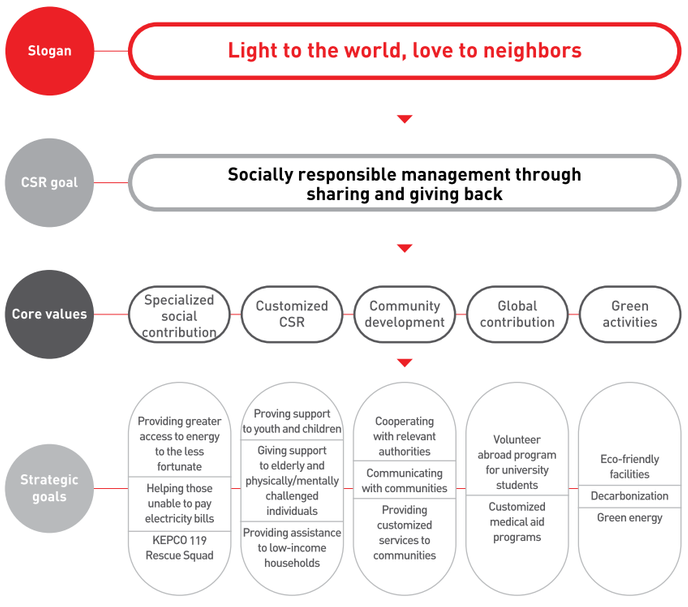
KEPCO volunteer abroad programs for university students

KEPCO Volunteer Group



In 2003, we launched the Energy Sharing Initiative to protect low-income households from power outage-related accidents. Under the initiative, we have assumed roughly KRW2.9 billion in electricity charges for 22,000 low-income households. Moreover, our Eye Love 1004 Project has helped roughly 1,000 low-income visually impaired or blind patients. In addition, we make efforts to reach out to areas where power transmission/substation facilities are installed, offering electrical repair services, assisting with farming, and purchasing local products. KEPCO also sponsors a missing child prevention campaign, and supports non-profit childcare centers through sisterhood ties, providing mentoring programs, education programs, and daily necessities.

KEPCO social contribution strategies



As a truly global company, we also look beyond Korea in our corporate social responsibility efforts, helping repair or renovate aging homes abroad. In 2016, we sent three volunteer teams, along with participants from universities, to countries where we have or will have overseas operations, to install solar street lights near schools.

KEPCO 119 Rescue Squad

Established in 2010, KEPCO 119 Rescue Squad is Korea's only disaster relief agency operated by a state-owned company. The organization divides the country into six zones, each of which is covered by a specific rescue squad comprised of a lifesaving team, a medical assistance team, and other members that provide various onsite support services. Professionals in emergency medical care and disaster recovery provide the services.

In 2016, we dispatched a team of 525 relief workers and volunteers to the Taewha Market in Ulsan, which was hit hard by Typhoon Chaba. Each year, we provide emergency medical services for the Electric Love Marathon and Bitgaram International Exposition on Electric Power Technology (BIXPO), ensuring the health and safety of participants.

The KEPCO 119 Rescue Squad will undergo further training in lifesaving and other areas to broaden its expertise and capabilities.

Major disaster relief activities in 2016

April	May	August	October	November
Emergency medical services support at the Electric Love Marathon	Emergency medical services at Eco Design Fair 2017 / Disaster preparedness drills, CPR training for the public	CPR training during the Ulchi-Freedom Guardian military exercise	Disaster relief activities in Ulsan	Emergency medical services support at BIXPO

KEPCO119 Rescue Squad

REVIEW OF FINANCE

KEPCO provides accurate data on its financial statements and earnings performance, and strives to maximize shareholder and enterprise value.

FINANCIAL HIGHLIGHTS

OPERATING REVENUE

60.2 trillion won

Up 2.1% from KRW59 trillion in 2015
to KRW60.2 trillion in 2016

NET INCOME

7.1 trillion won

Down 46.7% from KRW13.4 trillion in 2015
to KRW7.1 trillion in 2016

OPERATING INCOME

12 trillion won

Up 5.8% from KRW11.3 trillion in 2015
to KRW12 trillion in 2016

Consolidated Statements of Financial Position

As of December 31, 2014
As of December 31, 2015
As of December 31, 2016

(In millions of won)

	2016	2015	2014
Assets			
Current assets	**19,708,526**	**22,025,325**	**16,819,855**
Cash and cash equivalents	3,051,353	3,783,065	1,796,300
Current financial assets	2,671,989	5,335,621	176,428
Trade and other receivables	7,788,876	7,473,548	7,697,862
Inventories	5,479,443	4,946,413	4,537,469
Income tax refund receivables	19,163	9,081	18,475
Current non-financial assets	631,860	397,950	502,511
Assets held-for-sale	65,842	79,647	2,090,810
Non-current assets	**158,128,516**	**153,232,034**	**146,888,434**
Non-current financial assets	2,657,494	2,495,554	2,040,921
Non-current trade and other receivables	1,903,515	1,798,419	1,724,357
Property, plant and equipment	145,743,056	141,361,351	135,812,499
Investment properties	353,680	269,910	317,264
Goodwill	2,582	2,582	2,582
Intangible assets other than goodwill	980,821	855,832	821,060
Investments in associates	4,092,252	4,405,668	4,341,830
Investments in joint ventures	1,418,196	1,287,862	1,166,894
Deferred tax assets	795,131	623,623	526,934
Non-current non-financial assets	181,789	131,233	134,093
Total Assets	**177,837,042**	**175,257,359**	**163,708,289**
Liabilities			
Current liabilities	**24,739,226**	**22,710,842**	**21,600,068**
Trade and other payables	5,585,411	4,735,697	6,128,604
Current financial liabilities	8,942,329	7,857,198	7,162,372
Income tax payables	1,843,288	2,218,060	570,550
Current non-financial liabilities	6,368,210	6,320,711	6,464,356
Current provisions	1,999,988	1,579,176	1,274,186
Non-current liabilities	**80,047,271**	**84,604,042**	**87,283,211**
Non-current trade and other payables	3,558,175	3,718,435	3,806,735
Non-current financial liabilities	44,835,562	51,062,811	55,999,761
Non-current non-financial liabilities	7,591,605	7,092,252	6,946,410
Employee benefits liabilities	1,686,258	1,503,107	1,277,415
Deferred tax liabilities	8,948,520	8,362,683	5,723,880
Non-current provisions	13,427,151	12,864,754	13,529,010
Total Liabilities	**104,786,497**	**107,314,884**	**108,883,279**
Equity			
Contributed capital	**4,053,578**	**4,053,578**	**4,053,578**
Share capital	3,209,820	3,209,820	3,209,820
Share premium	843,758	843,758	843,758
Retained earnings	**53,173,871**	**48,187,241**	**35,303,647**
Legal reserves	1,604,910	1,604,910	1,604,910
Voluntary reserves	31,847,275	23,720,167	22,999,359
Unappropriated retained earnings	19,721,686	22,862,164	10,699,378
Other components of equity	**14,496,244**	**14,393,648**	**14,244,106**
Other capital surpluses	1,235,146	1,197,388	1,151,402
Accumulated other comprehensive income (loss)	(33,875)	(98,713)	(202,269)
Other equity	13,294,973	13,294,973	13,294,973
Equity attributable to owners of the Company	**71,723,693**	**66,634,467**	**53,601,331**
Non-controlling interests	**1,326,852**	**1,308,008**	**1,223,679**
Total Equity	**73,050,545**	**67,942,475**	**54,825,010**
Total Liabilities and Equity	**177,837,042**	**175,257,359**	**163,708,289**

Consolidated Statements of Comprehensive Income

As of December 31, 2014
As of December 31, 2015
As of December 31, 2016

(In millions of won)

	2016	2015	2014
Sales	**60,190,384**	**58,957,722**	**57,474,883**
Sales of goods	55,379,487	54,367,036	53,706,828
Sales of services	356,743	453,487	451,013
Sales of construction services	4,026,857	3,761,204	2,965,185
Proceeds from contribution in aid of construction	427,297	375,995	351,857
Cost of sales	**45,549,553**	**45,457,729**	**49,762,952**
Cost of sales of goods	41,237,372	41,348,917	46,509,555
Cost of Sales of services	557,037	545,692	500,787
Cost of sales of construction services	3,755,144	3,563,120	2,752,610
Gross profit	**14,640,831**	**13,499,993**	**7,711,931**
Selling and administrative expenses	**2,639,232**	**2,153,261**	**1,924,366**
Operating profit	**12,001,599**	**11,346,732**	**5,787,565**
Other non-operating income	**412,887**	**432,219**	**402,329**
Other non-operating expense	**188,624**	**108,848**	**88,220**
Other gains (loss)	**70,498**	**8,610,773**	**107,396**
Finance income	**791,543**	**1,182,988**	**885,290**
Finance expenses	**2,437,087**	**3,015,457**	**3,140,038**
Profit (loss) related associates, joint ventures and subsidiaries	**(137,348)**	**207,379**	**274,984**
Share in income of associates and joint ventures	224,435	280,794	319,506
Gain on disposal of investments in associates and joint ventures	52	4,731	47,072
Gain on disposal of subsidiaries	0	8,376	40,449
Share in loss of associates and joint ventures	(243,361)	(86,522)	(78,493)
Loss on disposal of investments in associates and joint ventures	(2,935)	0	(1,254)
Impairment loss on investments in associates and joint ventures	(115,539)	0	(52,279)
Loss on disposal of subsidiaries	0	0	(17)
Profit before income tax	**10,513,468**	**18,655,786**	**4,229,306**
Income tax expense	**3,365,141**	**5,239,413**	**1,430,339**
Profit (loss) for the period	**7,148,327**	**13,416,373**	**2,798,967**
Other comprehensive income (loss)	**(2,302)**	**34,006**	**(357,721)**
Items that will not be reclassified subsequently to profit or loss	(78,441)	(88,144)	(110,329)
Remeasurements of defined benefit liability, net of tax	(75,926)	(87,861)	(108,430)
Share in other comprehensive income (loss) of associates and joint ventures	(2,515)	(283)	(1,899)
Items that are or may be reclassified subsequently to profit or loss	76,139	122,150	(247,392)
Net change in the unrealized fair value of available-for-sale financial assets, net of tax	61,279	9,648	(97,251)
Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax	28,414	4,409	(84,793)
Foreign currency translation of foreign joint ventures, net of tax	41,360	18,535	(70,576)
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	(54,914)	89,558	5,228
Total comprehensive income (loss) for the period	**7,146,025**	**13,450,379**	**2,441,246**
Profit or loss attributable to:			
Owners of the company	7,048,581	13,289,127	2,686,873
Non-controlling interests	99,746	127,246	112,094
Total comprehensive income (loss) attributable to:			
Owners of the company	7,041,557	13,308,132	2,335,827
Non-controlling interest	104,468	142,247	105,419
Earnings per share			
Basic earnings (loss) per share	10,980	20,701	4,290
Diluted earnings (loss) per share	10,980	20,701	4,290

Consolidated Statements of Changes in Equity

As of December 31, 2014
As of December 31, 2015
As of December 31, 2016

(In millions of won)

	Equity					
	Equity attributable to owners of the company					
	Contributed capital	Retained earnings	Other components of equity	Subtotal	Non-controlling Interests	Total equity
Balance at January 1, 2014	4,053,578	32,766,086	13,440,004	50,259,668	1,191,068	51,450,736
Total comprehensive income (loss) for the period						
Profit for the period	**0**	**2,686,873**	**0**	**2,686,873**	**112,094**	**2,798,967**
Items that will not be reclassified subsequently to profit or loss						
Remeasurements of defined benefit liability, net of tax	0	(91,340)	0	(91,340)	(17,090)	(108,430)
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	(1,899)	0	(1,899)	0	(1,899)
Items that may be reclassified subsequently to profit or loss						
Net changes in the unrealized fair value of available-for-sale financial assets, net of tax	0	0	(97,263)	(97,263)	12	(97,251)
Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax	0	0	(80,218)	(80,218)	(4,575)	(84,793)
Foreign currency translation of foreign operations, net of tax	0	0	(84,962)	(84,962)	14,386	(70,576)
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	0	4,636	4,636	592	5,228
Transactions with owners of the Company, recognized directly in equity						
Dividends paid	0	(56,073)	0	(56,073)	(130,969)	(187,042)
Issuance of share capital by subsidiaries	0	0	(1,235)	(1,235)	7,453	6,218
Equity transaction in consolidated scope – other than issuance of share capital	0	0	237,159	237,159	72,452	309,611
Disposal of treasury stock	0	0	825,985	825,985	0	825,985
Changes in consolidation scope	0	0	0	0	(5,281)	(5,281)
Dividends paid (hybrid securities)	0	0	0	0	(16,463)	(16,463)
Others	0	0	0	0	0	0
Balance at December 31, 2014	**4,053,578**	**35,303,647**	**14,244,106**	**53,601,331**	**1,223,679**	**54,825,010**
Balance at January 1, 2015	**4,053,578**	**35,303,647**	**14,244,106**	**53,601,331**	**1,223,679**	**54,825,010**
Total comprehensive income (loss) for the period						
Profit for the period	0	13,289,127	0	13,289,127	127,246	13,416,373
Items that will not be reclassified subsequently to profit or loss						
Remeasurements of defined benefit liability, net of tax	0	(84,271)	0	(84,271)	(3,590)	(87,861)
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	(280)	0	(280)	(3)	(283)
Items that may be reclassified subsequently to profit or loss						
Net changes in the unrealized fair value of available-for-sale financial assets, net of tax	0	0	9,744	9,744	(96)	9,648
Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax	0	0	3,157	3,157	1,252	4,409
Foreign currency translation of profit (loss) of foreign operations, net of tax	0	0	1,179	1,179	17,356	18,535
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	0	89,476	89,476	82	89,558
Transactions with owners of the Company, recognized directly in equity						
Dividends paid	0	(320,982)	0	(320,982)	(86,071)	(407,053)
Issuance of share capital by subsidiaries	0	0	2,536	2,536	12,329	14,865
Equity transaction in consolidated scope – other than issuance of share capital	0	0	44,166	44,166	9,046	53,212
Disposal of treasury stocks	0	0	0	0	0	0
Changes in consolidation scope	0	0	(716)	(716)	23,229	22,513
Dividends paid (hybrid securities)	0	0	0	0	(16,455)	(16,455)
Others	0	0	0	0	4	4
Balance at December 31, 2015	**4,053,578**	**48,187,241**	**14,393,648**	**66,634,467**	**1,308,008**	**67,942,475**
Balance at January 1, 2016	**4,053,578**	**48,187,241**	**14,393,648**	**66,634,467**	**1,308,008**	**67,942,475**
Total comprehensive income (loss) for the period						
Profit for the period	**0**	**7,048,581**	**0**	**7,048,581**	**99,746**	**7,148,327**
Items that will not be reclassified subsequently to profit or loss						
Remeasurements of defined benefit liability, net of tax	0	(69,330)	0	(69,330)	(6,596)	(75,926)
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	(2,532)	0	(2,532)	17	(2,515)
Items that may be reclassified subsequently to profit or loss						
Net changes in the unrealized fair value of available-for-sale financial assets, net of tax	0	0	61,275	61,275	4	61,279
Net change in the unrealized fair value of derivatives using cash flow hedge accounting, net of tax	0	0	27,075	27,075	1,339	28,414
Foreign currency translation of foreign operations, net of tax	0	0	31,406	31,406	9,954	41,360
Share in other comprehensive income (loss) of associates and joint ventures, net of tax	0	0	(54,918)	(54,918)	4	(54,914)
Transactions with owners of the Company, recognized directly in equity						
Dividends paid	0	(1,990,089)	0	(1,990,089)	(99,982)	(2,090,071)
Issuance of share capital by subsidiaries	0	0	1,750	1,750	14,809	16,559
Equity transaction in consolidated scope – other than issuance of share capital	0	0	36,008	36,008	12,299	48,307
Disposal of treasury stocks	0	0	0	0	0	0
Changes in consolidation scope	0	0	0	0	3,705	3,705
Dividends paid (hybrid securities)	0	0	0	0	(16,455)	(16,455)
Others	0	0	0	0	0	0
Balance at December 31, 2016	**4,053,578**	**53,173,871**	**14,496,244**	**71,723,693**	**1,326,852**	**73,050,545**

Consolidated Statements of Cash Flows

As of December 31, 2014
As of December 31, 2015
As of December 31, 2016

(In millions of won)

	2016	2015	2014
Cash flows from operating activities	**16,520,552**	16,943,105	12,045,692
Cash generated from operations	**21,609,516**	19,881,773	14,548,167
Profit for the period	**7,148,327**	13,416,373	2,798,967
Adjustments to reconcile profit (loss) for the period	**16,694,332**	8,790,416	13,130,706
Income tax expense	3,365,141	5,239,413	1,430,339
Depreciation	8,881,273	8,269,118	7,797,046
Amortization	79,715	72,266	76,413
Employee benefit expense	373,753	314,692	121,406
Bad debt expense	37,815	18,350	54,999
Interest expense	1,752,868	2,015,684	2,351,624
Loss on sale of financial assets	9	3,008	2,700
Loss on disposal of property, plant and equipment	4,996	1,933	50,152
Loss on abandonment of property, plant, and equipment	426,519	365,056	309,451
Impairment loss on property, plant and equipment	0	30,344	38,107
Impairment loss on intangible assets	3,945	22	42
Loss on disposal of intangible assets	158	16	18
Accretion expense to provisions, net	1,782,732	1,602,724	1,295,150
Gain (loss) on foreign currency translation, net	253,468	617,224	351,660
Valuation and transaction loss (gain) on derivative instruments, net	(231,630)	(708,120)	(143,239)
Share in income of associates and joint ventures, net	18,926	(194,272)	(241,013)
Gain on sale of financial assets	(1,482)	(4)	(98,065)
Gain on disposal of property, plant and equipment	(74,035)	(8,637,508)	(85,775)
Gain on disposal of intangible assets	0	(32)	(4)
Gain on disposal of investments in associates and joint ventures	(52)	(4,731)	(47,072)
Loss on disposal of investments in associates and joint ventures	2,935	0	1,254
Gain on disposal of investments in subsidiaries	0	(8,376)	(40,449)
Loss on disposal of investments in subsidiaries	0	0	17
Impairment loss on investments in associates and joint ventures	115,539	0	52,279
Interest income	(241,778)	(241,585)	(191,456)
Dividend income	(9,446)	(14,069)	(14,193)
Impairment loss on available-for-sale securities	86,703	84,370	79,618
Others, net	66,260	(35,107)	(20,303)
Changes in assets (liabilities) from operating activities	**(2,233,143)**	**(2,325,016)**	**(1,381,506)**
Trade receivables	200,529	715,498	96,294
Non-trade receivables	(68,322)	(17,102)	9,063
Accrued income	69,151	17,051	(207,155)
Other receivables	10,093	(9,441)	(906)
Other current assets	(259,492)	67,520	75,410
Inventories	(1,439,545)	(1,190,188)	(1,146,221)
Other non-current assets	(2,792)	(31,465)	47,119
Trade payables	141,994	(1,577,551)	(257,614)
Non-trade payables	(8,379)	38,223	(102,526)
Accrued expenses	(153,172)	(410,744)	(107,277)
Other payables	0	964	0
Other current liabilities	284,417	870,945	2,249,714
Other non-current liabilities	809,699	377,617	(317,437)
Investments in associates and joint ventures	75,407	114,708	47,120
Provisions	(1,527,129)	(1,033,502)	(675,569)
Payments of employee benefit obligations	(53,477)	(43,100)	(860,179)
Plan assets	(312,125)	(214,449)	(231,342)
Dividends received	**10,294**	**38,565**	**13,518**
Interest paid	**(2,041,379)**	**(2,176,040)**	**(2,460,457)**
Interest received	**240,878**	133,875	167,269
Income taxes paid	**(3,298,757)**	(935,068)	(222,805)
Cash flows from investing activities	**(9,645,870)**	(9,773,970)	(14,460,333)
Proceeds from disposals of associates and joint ventures	**46,644**	22,058	232,228
Acquisition of equity stake in associates and joint ventures	**(113,222)**	(116,114)	(248,223)
Proceeds from disposals of property, plant and equipment	**207,960**	9,843,796	111,260
Acquisition of property, plant and equipment	**(12,028,789)**	(14,049,887)	(14,547,499)
Proceeds from disposals of intangible assets	**430**	467	1,819
Acquisition of intangible assets	**(124,422)**	(87,946)	(68,624)
Proceeds from disposals of financial assets	**10,876,017**	242,856	1,060,117
Acquisition of financial assets	**(8,130,621)**	(5,326,151)	(975,104)
Increase in loans	**(206,092)**	(153,570)	(135,001)
Collection of loans	**117,561**	111,714	101,037
Increase in deposits	**(468,734)**	(352,669)	(335,518)
Decrease in deposits	**161,166**	185,154	227,354
Receipt of government grants	**32,878**	52,696	108,681
Usage of government grants	**(33,516)**	(13,372)	(36,464)
Net cash inflow (outflow) from business acquisition	**3,754**	(968)	44,319
Other cash inflow (outflow) from investing activities, net	**13,116**	(132,034)	(715)
Cash flows from financing activities	**(7,637,476)**	(5,206,619)	1,985,176
Proceeds (Repayment) from short-term borrowings, net	**(49,604)**	(65,355)	59,421
Proceeds from Long-term borrowings and debt securities	**2,302,060**	4,178,454	9,566,625
Repayment of long-term borrowings and debt securities	**(7,750,047)**	(8,960,706)	(8,119,325)
Payment of finance lease liabilities	**(118,215)**	(110,040)	(115,532)
Settlement of derivative instruments, net	**73,246**	73,348	(444,243)
Disposal of treasury stocks	**0**	0	852,962
Change in non-controlling interest	**10,538**	104,019	389,072
Dividends paid (hybrid bond)	**(16,455)**	(16,455)	(16,463)
Dividends paid	**(2,088,429)**	(409,884)	(186,985)
Other cash outflow from financing activities, net	**(570)**	0	(356)
Net increase (decrease) in cash and cash equivalents before effect of exchange rate fluctuations	**(762,794)**	1,962,516	(429,465)
Effect of exchange rate fluctuations on cash held	**31,082**	24,249	(6,548)
Net increase (decrease) in cash and cash equivalents	**(731,712)**	1,986,765	(436,013)
Cash and cash equivalents at January 1	**3,783,065**	1,796,300	2,232,313
Cash and cash equivalents at December 31	**3,051,353**	3,783,065	1,796,300

Corporate data

Peak demand, supply and installed capacity (based on the peak load occurrence time) (MW)

Time of occurrence: 17:00, August 12, 2016

* Installed capacity and gross generation by energy source (including IPP)

Installed capacity and gross generation by energy source (including IPP)

		Hydro	Coal	Oil	LNG	Nuclear	Alternative	Total
Installed capacity	(MW)	6,485	32,035	4,129	32,624	23,116	7,477	105,866
	(%)	6.1	30.3	3.9	30.8	21.8	7.1	100%
Gross generation	(GWh)	6,633	213,740	14,253	120,852	161,995	22,967	540,440
	(%)	1.2	39.5	2.6	22.4	30.0	4.2	100%

Installed capacity by company (as of end-2016) (MW)

Fuel	KHNP	KOSEP	KOMIPO	KOWEPO	KOSPO	EWP	KEPCO	Other	Total
Nuclear	Kori [3,137] Hanbit [5,900] Wolseong [2,779] Hanul [5,900] Shin-Kori [3,400] Shin-Wolseong [2,000]	-	-	-	-	-		-	23,116
Steam		Samcheonpo [3,240] Yeongheung [5,080] Yeosu [669] Yeongdong [325]	Boryeong [4,000] Seocheon [400] Jeju [150] Seoul [250]	Taean [5,050] Pyeongtaek [1,400]	Hadong [4,000] South Jeju [200] Samcheok Green[1,022]	Dangjin [5,860] Honam [500] Donghae [400] Ulsan [1,200]			33,746
Combined		Bundang [922]	Boryeong [1,350] Incheon [1,462] Sejong [530]	Pyeongtaek [1,349] West Incheon [1,800] Gunsan [718]	Shin-Incheon [1,800] Busan [1,800] Yeongwol [848] Andong [362] Hallim [105]	Ilsan [900] Ulsan [2,072]		Other [14,514]	30,531
Internal-combustion			Jeju [135]				Islands [195]		330
Hydro	Muju, etc. [4,700] Hwacheon, etc. [606]	Samcheonpo etc. [20]	Boryeong etc. [13]		Haengwon [0.1]	Dangjin, etc. [8]		Chungju, etc. [1,138]	6,485
Alternative	Yeonggwang PV, etc. [17]	Yeongheung wind, etc. [76]	Seoul PV, etc. [52]	Taean IGCC , etc. [408]	Seongsan wind, etc.[47]	Gwangyanghang PV, etc. [59]	Islands PV [1]	Other [6,817]	7,477
Integrated								Integrated , etc. [4,181]	4,181
Total	28,438	10,332	8,342	10,725	10,184	10,999	196	26,650	105,866

Nationwide Electric Power Grid

Power Station · 765kV Substations · 345kV Substations · 765kV Route · 345kV Route · DC±180kV Cable Link · DC±250kV Cable Link

Power Generation Companies

Korea Hydro & Nuclear Power Co., Ltd. (KHNP)

Address 1655 Bulguk-ro, Yangguk-myeon, Gyeongju-si, Gyeongsangbuk-do, KOR
Number of employees 11,507
Website www.khnp.co.kr
Paid-in capital KRW 1212.2 billion
Shareholding 100%

Revenue 111,686
Assets 510,439
Net income 24,548
Debt ratio 107.7% (In 100 million won, non-consolidated)

KHNP is the only nuclear power plant operator in Korea. It also operates hydropower and pumped storage plants. Its total installed capacity is 28,439 MW, including 23,116 MW from 25 nuclear power plants, 606MW from 35 hydropower plants, and 17MW from six new & renewable power plants. KHNP accounts for around 26.9% of Korea's total power generation capacity (excluding private power stations).

Korea South-East Power Co., Ltd. (KOSEP)

Address 32 Sadeul-ro, 123 beon-gil Jinju-si, Gyeongsangnam-do, KOR
Number of employees 2,262
Website www.kosep.co.kr
Paid-in capital KRW 297.6 billion
Shareholding 100%

Revenue 50,936
Assets 97,738
Net income 5,311
Debt ratio 96.3% (In 100 million won, non-consolidated)

KOSEP operates Samcheonpo Thermal Power Plant and Yeongheung Thermal Power Plant. Its total installed capacity is 10,332MW including 8,989MW from 16 bituminous coal-fired units, 922MW from 10 gas-fired/combined cycle units, and 325MW from two anthracite coal-fired units.

Korea Midland Power Co., Ltd. (KOMIPO)

Address 160 Boryeongbuk-ro, Boryeong-si, Chungcheongnam-do, KOR
Number of employees 2,437
Website www.komipo.co.kr
Paid-in capital KRW 142.9 billion
Shareholding 100%

Revenue 37,200
Assets 90,667
Net income 4,007
Debt ratio 148.38% (In 100 million won, non-consolidated)

KOMIPO operates Boryeong Thermal Power Plant, Seocheon Thermal Power Plant, etc. Its total installed capacity is 8,342MW, including 4,000MW from eight bituminous coal-fired units, 3,343MW from 21 gas-fired/combined cycle units, 400MW from two anthracite coal-fired units, and 150MW from two oil-fired units. In accordance with the government's long-term power supply plan, the firm is building Shin- Boryeong #1 and #2 plants (2,000MW), Seoul CCPP #1 and #2 (800MW), and Jeju CCPP #1 (240MW).

Korea Western Power Co., Ltd. (KOWEPO)

Address Jungang-ro, Taean-eup, Taean-gun, Chungcheongnam-do, KOR
Number of employees 2,177
Website www.westernpower.co.kr
Paid-in capital KRW 166.6 billion
Shareholding 100%

Revenue 41,697
Assets 98,107
Net income 4,019
Debt ratio 148.8% (In 100 million won, non-consolidated)

KOWEPO operates Taean Thermal Power Plant, etc. Its total capacity is 10,725MW, including 5,050MW from nine bituminous coal-fired units, 3,867MW from 27 gas-fired/combined cycle units, and 1,400MW from four oil-fired units. In accordance with the government's long-term power supply plan, KOWEPO is building Taean Thermal Power Plant unit #9 and #10 (2,100MW).

Korea Southern Power Co., Ltd. (KOSPO)

Address 40 Munhyeongeumyung-ro, Busan, KOR
Number of employees 2,137
Website www.kospo.co.kr
Paid-in capital KRW 238.7 billion
Shareholding 100%

Revenue 42,000
Assets 98,060
Net income 4,263
Debt ratio 135.3% (In 100 million won, non-consolidated)

KOSPO operates Hadong Thermal Power Plant, etc. Its total installed capacity is 10,184MW, including 5,022MW from nine bituminous coal-fired units, 4,915MW from 33 gas-fired/combined cycle units, 200MW from two oil-fired units, and 41MW from 19 wind farms. In accordance with the government's long-term power supply plan, KOSPO is constructing Samcheok Green Power (2,044MW) and Yeongnam Power (476MW).

Korea East-West Power Co., Ltd. (EWP)

Address 395 Jongga-ro, Jung-gu, Ulsan, KOR
Number of employees 2,389
Website www.ewp.co.kr
Paid-in capital KRW 289.7 billion
Shareholding 100%

Revenue 42,109
Assets 89,680
Net income 4,676
Debt ratio 100.2% (In 100 million won, non-consolidated)

EWP operates Dangjin Thermal Power Plant, Honam Thermal Plant, etc. Its total installed capacity is 11,000MW, including 6,360MW from 12 bituminous coal-fired units, 2,972MW from 20 LNG CCPP units, 1,200MW from three oil-fired units, and 400MW from two anthracite coal-fired units. In accordance with the government's long-term power supply plan, EWP is building Dangjin Thermal Power Plant unit #9 and #10 (2,040MW).

KEPCO Affiliate Companies

KEPCO E&C Co., Inc.

Address 269 Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, KOR
Number of employees 2,159
Website www.kepco-enc.com
Paid-in capital KRW 5 billion
Shareholding 66.32%

Revenue	5,060
Assets	7,866
Net income	178
Debt ratio	86.44%

(In 100 million won, non-consolidated)

KEPCO E&C is a plant engineering firm established in 1975. It engages in nuclear/hydro/thermal power plant design, operation & maintenance (O&M) of power facilities, plant construction, and production management (PM)/ construction management (CM). The company standardized 1,000MWe-scale nuclear power plants, and developed next-generation, 1,400MWe-scale nuclear power plant design technology (APR1400), based on which Shin-Kori #3 and #4, Shin-Hanul # 1 and #2, Shin-Kori #5 and #6, and the UAE Barakah nuclear power plant are being designed.

KEPCO Plant Service &Engineering (KPS)

Address 211 Munhwa-ro, Naju-si, Jeollanam-do, KOR
Number of employees 5,508
Website www.kps.co.kr
Paid-in capital KRW 4.6 billion
Shareholding 52.5%

Revenue	12,143
Assets	10,864
Net income	867
Debt ratio	38.4%

(In 100 million won, non-consolidated)

KPS is a comprehensive plant service firm providing high-quality maintenance services for power plants (nuclear, thermal and hydro), transmission lines/ substations, and industrial facilities. KPS helps prevent unexpected facility shutdowns due to malfunctions and increase capacity utilizations by providing start-up maintenance during construction, corrective maintenance during operation, preventive maintenance, and repairs and upgrades.

KEPCO Nuclear Fuel Co., Ltd. (KEPCO NF, KNF)

Address 242 Daedeok-daero 989, Yuseong-gu, Daejeon, KOR
Number of employees 1,162
Website www.knfc.co.kr
Paid-in capital KRW 89.8 billion
Shareholding 96.36%

Revenue	3,099
Assets	7,132
Net income	331
Debt ratio	94.2%

(In 100 million won, non-consolidated)

KNF is the only firm in Korea capable of engineering, designing and manufacturing nuclear fuel. It was established for the purpose of domestically developing nuclear fuel technology. It is an exclusive supplier of nuclear fuel for light water and heavy water reactors in Korea, and plans to supply the fuel to nuclear power plants in the UAE. Its export competitiveness has strengthened with the development of high-performance fuel featuring enhanced safety and cost efficiency.

Korea Electric Power Data Network Co., Ltd (KEPCO KDN)

Address 661 Bitgaram-ro, Naju-si, Jeollanam-do, KOR
Number of employees 2,045
Website www.kdn.com
Paid-in capital KRW 64 billion
Shareholding 100%

Revenue	5,882
Assets	5,199
Net income	431
Debt ratio	65.56%

(In 100 million won, non-consolidated)

KEPCO KDN provides IT services to KEPCO, and is growing into a global power IT specialist that offers comprehensive IT solutions to power facilities. Main businesses include: construction/operation of information systems, power IT services, construction/maintenance of information communications infrastructure, intelligent power distribution systems, and information security. It is focusing on PLC AMI and smart distribution systems to enable smart grids.

Global network

Overseas Offices

Overseas subsidiaries (as of end-2016)

Company name	Country	Main business
KEPCO International Hong Kong Ltd.	Hong Kong	Supports power plant operations in Malaya, the Philippines
KEPCO International Philippines Inc.	Philippines	Supports power plant operations in Ilijan, the Philippines
KEPCO Philippines Holdings, Inc.	Philippines	Acquired a stake in Naga Power Plant, the Philippines; Constructed and operates Cebu Power Plant
KEPCO Gansu International Ltd.	Hong Kong	Supports the wind power business in Gansu, China
KEPCO Neimenggu International Ltd.	Hong Kong	Supports the wind power business in Inner Mongolia, China
KEPCO Lebanon SARL	Lebanon	Provides operation & maintenance services for the power plant in Lebanon
KEPCO Shanxi International Ltd.	Hong Kong	Supports the joint venture business with Gemeng International
Korea Electric Power Nigeria Ltd.	Nigeria	Carries out Egbin power plant recovery project in Nigeria
KEPCO Austrailia Pty. Ltd.	Australia	Engages in soft coal mining in Australia
KEPCO Canada Energy Ltd. (to be liquidated in the first half of 2017)	Canada	Engages in uranium mining in Canada

Company name	Country	Main business
KEPCO Middle East Holding Company	Bahrain	Supports Al Qatrana power plant business in Jordan
KEPCO Netherlands B.V.	Netherlands	Supports the Rabigh IPP project in Saudi Arabia
KEPCO Holdings De Mexico	Mexico	Supports the Norte IPP project in Mexico
KEPCO Netherlands S3. B.V.	Netherlands	Supports the Shuwuihat S3 project in the UAE
KEPCO Netherlands J3 B.V.	Netherlands	Supports the Amman project in Jordan
KEPCO Singapore Holdings Pte. Ltd.	Singapore	Invests in the Nghi Son II IPP project in Vietnam
Fujeij Wind Power Company	Jordan	Operates the Fujeij wind power business in Jordan
Global One Pioneer B.V.	Netherlands	Invests in the UAE nuclear IPP business
Global Energy Pioneer B.V.	Netherlands	Invests in the UAE nuclear IPP business
PT Kepco Resources Indonesia	Indonesia	Engages in soft coal mining in Indonesia

2016 KEPCO NEWS

January-December 2016

Embarked on 7 new energy projects and attracted more businesses to Bitgaram Energy Valley

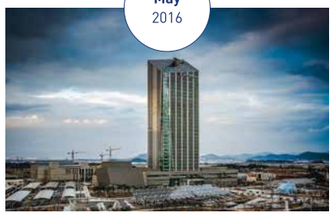
In 2016, KEPCO embarked on seven new energy projects, including: a new electricity business fund (KRW2 trillion), a school rooftop solar power generation project (KRW400 billion), KEPCO energy solutions (KRW300 billion), AMI construction, ESS for frequency regulation, EV charging infrastructure, and the Electricity Big Data Center. These projects are part of KEPCO's efforts to nurture new growth drivers to better comply with the new climate regime. Meanwhile, KEPCO entered into Bitgaram Energy Valley investment agreements with 44 firms, attracting a total of 177 businesses in less than two years, far surpassing its goal of 150 firms.

April 2016

Successfully launched its first overseas solar power plant project

On April 20th, KEPCO held a groundbreaking ceremony for its 28MW solar power project in Chitose, Hokkaido, Japan. Around 130,000 solar PV modules will be installed on a 109ha site near the New Chitose Airport by the end of 2017. This project is particularly meaningful in that it is KEPCO's first overseas solar power project. As KEPCO has secured the right to sell electricity to Hokkaido power companies for 25 years after solar PV modules are installed, it is expected to book profits of KRW381.4 billion, including KRW317.4 billion from electricity sales and KRW64 billion from dividends over the period.

May 2016



Selected as the best electric utility in the Forbes Global 2000

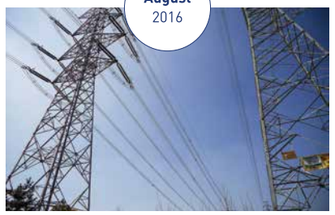
KEPCO was named the best company in the electric utility sector in the Forbes Global 2000. The company's overall ranking, inclusive of all sectors, was 97th. KEPCO was the only electric utility among the top 100 companies, and became the first Asian company to rank first in the electric utility sector. Compared with the 2015 rankings (171st overall; 4th among electric utilities), the 2016 standings mark significant progress year-on-year. These accomplishments and acknowledgements should help KEPCO win more overseas projects down the road.

June 2016

Refinanced Rabigh heavy oil power plant project in Saudi Arabia

In 2009, the KEPCO-ACWA Power consortium won the Rabigh power plant project(1,204MW), with KEPCO holding a 40% stake. The business has remained stable since commercial operations began in April 2013. In June 2016, KEPCO secured roughly KRW23 billion in additional profits by refinancing existing debts to reduce financing costs. The transaction, KEPCO's first overseas refinancing deal, proves its world-class financing capabilities, which have been honed over many years of overseas project development/execution.

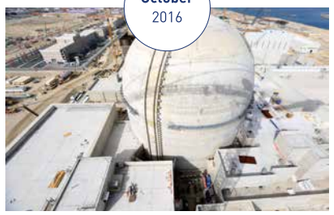
August 2016



Became the first Korean firm to win a CIO 100 Awards

On August 16, KEPCO won a 2016 CIO 100 Awards for its xGrids project, which utilizes next-generation SCADA. CIO 100 Awards are given to firms that have distinguished themselves by creating value through the innovative use of technology. As of 2016, KEPCO boasts the world's lowest T&D loss rate, the highest frequency/normal voltage hold rate, and the second-lowest power outage per household.

October 2016



Signed a deal with ENEC to operate 4 neclear plant, the largest overseas project in KEPCO's history

KEPCO and ENEC forged an agreement, under which KEPCO secured the right to operate a UAE nuclear power plant. The agreement should allow KEPCO to further strengthen its overseas presence in EPC and nuclear power plants. Moreover, the UAE nuclear IPP project attracted record project financing of USD24.4 billion from a wide array of financial institutions, including four international commercial banks and the Export-Import Bank of Korea. The deal proves KEPCO's top-class financing capabilities, which have been honed over many years of overseas project development/execution.

October 2016

Won its third overseas power generation project of 2016 - a record for KEPCO

In 2016, KEPCO enjoyed strong overseas momentum by winning three power generation projects. Among them was a coal-fired power plant construction project in Limpopo, South Africa. In October, KEPCO signed an power purchase agreement with Eskom, a state-owned power company in the country. In September, KEPCO signed an MOU with China Huaneng Group, China's largest power company, for a coal-fired plant construction project. In August, KEPCO acquired a solar power plant in Colorado, which is expected to help the firm further advance into the US market.

October 2016

Signed a power purchase agreement with Korea's first energy self-sufficient island

On October 31st, KEPCO entered into a power purchase agreement (PPA) with Ulleung Enerpia, an SPV jointly established by North Gyeongsang Province, Ulleung County, KEPCO, LG CNS, and Dohwa Engineering. With the signing of the agreement, efforts to promote energy self-sufficiency for islands via solar and wind power have taken off in full force. The project is expected to put KEPCO at the forefront of renewable energy proliferation efforts under the new climate regime, and help increase exports of new energy businesses.

November 2016

Successfully held BIXPO 2016

BIXPO 2016 was held at the Kimdaejung Convention Center in Gwangju from November 2nd to 4th. 2,400 energy/electricity experts from 43 countries participated in the event, with around 520 stands and booths attracting the attention of 52,000 visitors from Korea and abroad. Various business meetings were held during the event, resulting in USD1.12 billion (KRW1.28 trillion) worth of potential export deals. BIXPO 2016 also helped strengthen global business networks and demonstrate the superiority of new energy businesses.

November 2016

Completed the installation of Saemangeum transmission lines after resolving conflicts

The installation of 345kV transmission lines between Gunsan and Saemangeum was completed in November 2016, eight years after breaking ground. The construction of Dongbaek Bridge (between Gunsan and Seocheon), which had been suspended over budget and compensation disputes, was completed without incident 1.5 years after construction resumed in May 2015, as negotiations with all 71 neighboring villages were finalized in just six months. 88 345kV transmission towers were installed between the Gunsan substation and the Saemangeum substation(30.6km), and they started to supply electricity to Saemangeum Industrial Complex in December.

November 2016

Launched COK11 and was ranked first in the energy/utility sector by CDP

On June 3rd, the Conference of KEPCO Group Companies to Cope with Climate Change (COK11) was launched. COK11 aims to actively respond to the government initiative to cut GHG emissions, and take the lead in nationwide efforts to tackle climate change. On November 1st, KEPCO was honored for its carbon management efforts by the Carbon Disclosure Project (CDP) of the UK. KEPCO's strong record, including a 7.7% reduction in GHG emissions year-on-year and the establishment of an efficient carbon management system, earned the company an "A" grade as well as the top ranking in the energy/utility sector.

December 2016

Revamped the residential electricity pricing table, pushing prices down to the lowest level in history

On December 1st, KEPCO revamped the residential electricity pricing table, reducing the number of pricing tiers from six to three, and narrowing the gap between the lowest and highest prices from 11.7 times to three times. The sliding scale pricing system, introduced in the aftermath of the 1974 oil crisis, had been generating controversy, and KEPCO changed its pricing table to best serve the interests of Korea's residents.

HISTORY OF KEPCO

KEPCO has been a major driving force behind Korea's development over the past 100 years, constantly working to evolve and innovate. Our world-class electricity quality and power distribution know-how will continue to aid us as we continue to cement our leadership in the global energy market.

1898-1944

January 1898 Incorporated as Hansung Electric Company, South Korea's first electric power company
1899 Completed the Dongdaemun Power Plant and began the commercial operation of an electric train line
November 1930 Completed Unit 1 (10MW) of Danginni Power Plant, the first thermal power plant in the country
March 1944 Completed Supung Hydro Power Plant, the largest hydropower plant in Asia

After the establishment of Hansung Electric Company, the first electric power company in South Korea, power supply and power plant construction began, and electric trains started to run.

1945-1993

July 1961 Established Korea Electric Company by integrating three domestic electric companies
July 1978 Completed Kori Nuclear Power Plant, opening the nuclear power era
October 1979 Completed the rural electrification project, with the rural electrification rate rising from 12% to 98%
January 1982 Established Korea Electric Power Corporation (KEPCO), a state-owned company

Since its establishment after the end of the Korean War, Korea Electric Company has achieved stable power supply via the development of power sources, rural electrification, and nuclear power generation.

1994-2009

October 1994 Listed on the New York Stock Exchange, a second among South Korean companies
May 1995 Won a contract to operate the Malaya Thermal Power Plant in the Philippines, its first overseas power generation project
November 1997 Won a contract to build and operate the Ilijan Combined-Cycle Power Plant in the Philippines
April 2001 Launched the Korea Power Exchange with the six other power generation companies following the restructuring of the power industry
May 2002 Developed APR-1400, an advanced pressurized water nuclear reactor
May 2002 Opened the 765kV transmission era
May 2004 Founded the KEPCO Social Volunteer Group, the largest volunteer program among domestic public enterprises
November 2005 Successfully increased distribution line voltage to 220V
June 2006 Received the Edison Award, the highest honor in the power industry, for the second time
December 2009 Won a landmark UAE nuclear power order, the company's first nuclear technology export deal

Since the listing on the New York Stock Exchange, KEPCO has actively expanded its overseas business, beginning with the power generation project in the Philippines.
It achieved technological innovation in power T&D through the operation of 765kV power cables and voltage boost to 220V, and achieved technological independence in nuclear power generation through the development/export of new water reactors.

2010-2016

October 2013 Hosted the World Energy Congress, the world's largest and most influential energy event, in Daegu
December 2014 Relocated to Bitgaram Innovation City, opening the Energy Valley era
October 2015 Successfully held Bitgaram International Exposition on Electric Power Technology (BIXPO) 2015
May 2016 Was named the top electric utility in the Forbes Global 2000
August 2016 Won a 2016 CIO 100 Award, a first for a Korean company
September 2016 Selected as the top electric utility in the 2016 Platts Top 250 global energy company rankings
October 2016 Signed a joint venture agreement for the operation of the UAE power plant

KEPCO opened the era of the Bitgaram Energy Valley following the successful hosting of the World Energy Congress in 2013, and its relocation to Bitgaram Innovation City in Gwangju/South Jeolla Province in 2014. Fully capitalizing on its heightened global standing after being selected as the top electric utility in the Forbes Global 2000 in 2016, it is actively seeking to cement its global leadership through further expansions in the Americas and Africa.