**Head Office in Gimcheon**
269 Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do,
39660, Republic of Korea
Tel +82-54-421-3114

**NSSS Division in Daejeon**
989-111 Daedukdaero, Yuseong-gu,
Daejeon Metropolitan City, 34057, Republic of Korea
Tel +82-42-868-4000

www.kepco-enc.com

newpower,
newstandard

**New power, KEPCO E&C makes the new global standard**

KEPCO ENGINEERING & CONSTRUCTION COMPANY, INC.

newpower, newstandard

newpower,

newstandard

## CONTENTS



Mission

# Harmony of Human, Environment and Technology

Vision 2035

## Technology for Earth, Energy for Human

Core Value

| Humans | Technology | Future |
|---|---|---|

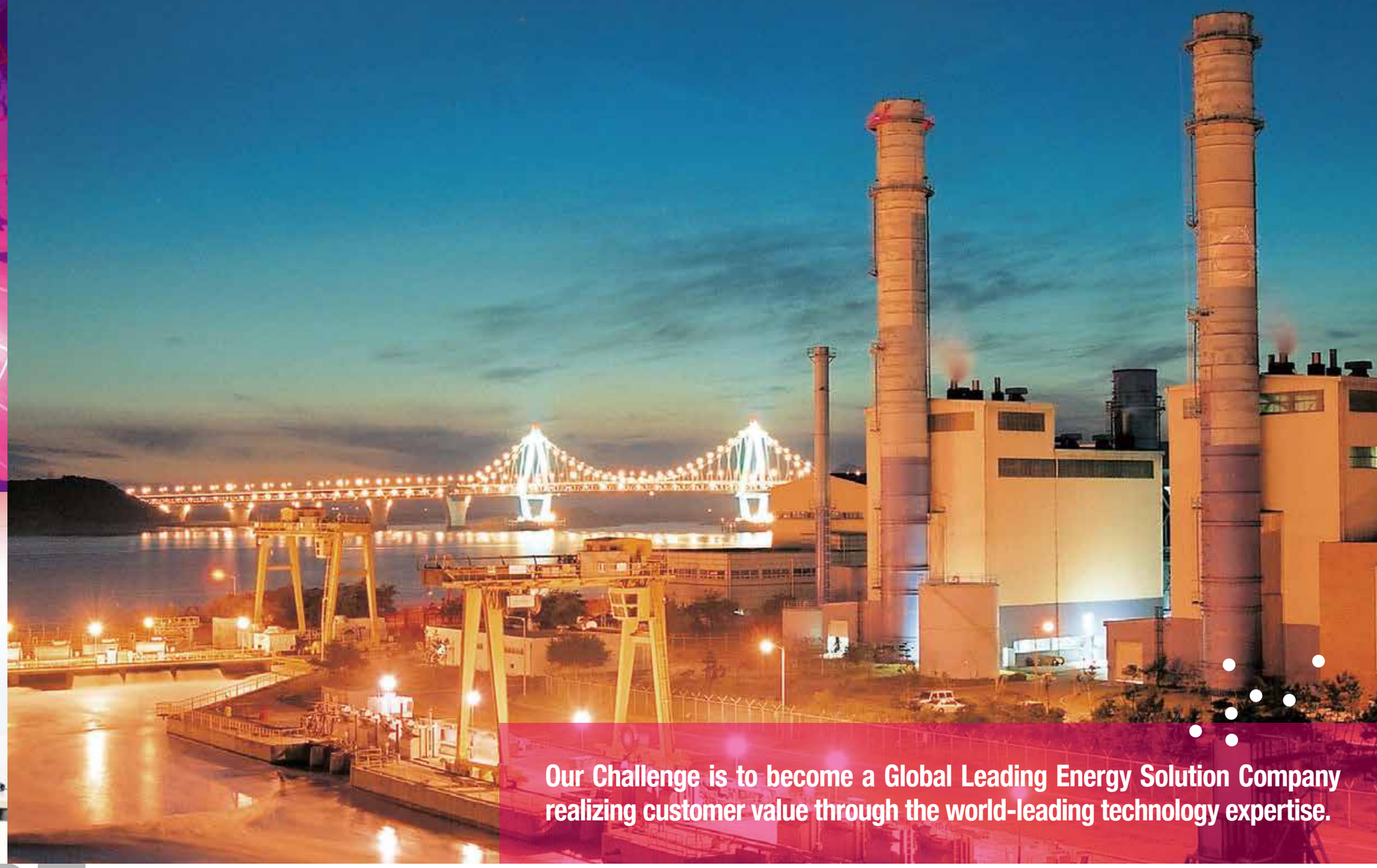
Management goals

sales of **KRW 1.5 Trillion** in 2035

| | | | |
|---|---|---|---|
| Clean energy sales of **KRW 1.3 trillion** | Korean New Deal goals **100%** | R&D commercialization rate **70%** | ESG overall grade **A+** |
| Overseas sales of **KRW 500 billion** | **Percentage of Sales 48%** in Green new clear investment | R&D investment of **KRW 150 billion** | Employee Commitment **90 points** |

Management strategies

| | | | |
|---|---|---|---|
| Focus on core competencies **Invigorating core and growth businesses** | Business diversification **Advancement of future businesses** | Advancement of the technology management system **Securing energy technology commercialization** | Leading the Business Innovation **Building a sustainable management system** |



# CHALLENGE

## Our Challenge is to become a Global Leading Energy Solution Company realizing customer value through the world-leading technology expertise.

Since our foundation, we have committed to engineering technology innovation aimed at achieving safer and more economical power plant design in Korea which barely had engineering infrastructure. We have played a significant role in Korean power industry, leading technology innovation and opening doors to a brighter future. Now we are taking on a new challenge to become "Global Energy Solution Leading Company by 2035."

# PROFESSIONALISM

## With our cutting-edge technology and extensive engineering experience, we have gained worldwide recognition in nuclear & thermal power plant industry.

"Let's study hard, and work sincerely" is the our motto, implying our unwavering will to become one of the world's best engineering companies. We are confident that our professionalism and enthusiasm serves as a quiet but strong force that changes the world.

## We stress not only the norm and principles of professionals but also communication with clients and communities aimed at achieving development of the mankind.

Our ultimate goal is to “contribute to happiness of mankind with technology.” We are more dedicated to achieving co-prosperity with clients, employees, stockholders, partners, and communities than simply pursuing short-term profits. We aim to be the most respected company by embracing the highest level of business ethics and fulfilling social responsibilities.

# COMMUNICATION

**Going forward, we'll continue to come up with energy technologies to make humans and the environment in harmony.**

Welcome to the KEPCO E&C.
I would like to express my gratitude for your continued trust and interest in KEPCO E&C.

KEPCO E&C was established in 1975, at the dawn of Korea's industrialization, with the goal of achieving self-reliance in terms of nuclear power plant engineering technology. The technological achievements of KEPCO E&C over the past 48 years in the nuclear power, thermal power, and renewable energy sectors have laid the foundation for the economic development of Korea and the abundance of the people.

KEPCO E&C's success continues in the global market. In the middle of a desert in the United Arab Emirates (UAE), the Advanced Power Reactor 1400 (APR1400), designed by KEPCO E&C, has been built and operated. APR1400, a reactor type for export developed with Korea's indigenous technology, has been highly regarded for its excellent operational and maintenance convenience, constructability, economic efficiency, and safety.

KEPCO E&C strives to create energy technology that enriches the lives of humans. This is also in line with the corporate philosophy of KEPCO E&C: "Humaneering, the Harmony of Human, Environment, and Technology."

At KEPCO E&C, we are fully committed to diversifying our growth engines based on our core capabilities, advancing into the global market with accumulated experience and technology, expanding renewable and digital transformation businesses, and developing technologies for new energy sources.

We will provide high-quality comprehensive technical services throughout the entire life cycle of power generation and energy plants, as well as design a new future for the energy industry with relentless pursuit and passion.

We look forward to your continued encouragement and support as we write a new chapter in the history of KEPCO E&C.

Thank you.

President and CEO Kim Sung Arm

# KEPCO E&C ACTIVITIES

- NUCLEAR POWER
- THERMAL POWER
- NEW & RENEWABLE ENERGY
- ENVIRONMENT
- EPC(Engineering, Procurement and Construction)

# NUCLEAR POWER

By virtue of technological expertise and outstanding human resources, we provide better nuclear power plant engineering services encompassing both of the design of Nuclear Steam Supply System and Architect Engineering for local and overseas clients.

We independently designed the Korean standard nuclear reactor, OPR 1000, applied Hanul Units 3-4-5&6, Hanbit Units 5&6. Improved OPR 1000 in terms of safety and economic viability, we have incorporated it into the construction of 4 units (Shin-Kori Unit 1&2, Shin-Wolsong Units 1&2 in service).

Our APR1400, exported to the UAE(KEPCO E&C's first overseas nuclear power plant project) known as an internationally competitive next-generation nuclear power plant model, is also to be installed in Shin-Kori Units 3-4-5&6, and Shin-Hanul Units 1 & 2 currently under construction.


Hanul Nuclear Power Plant

## Optimized Power Reactor 1000(OPR1000)

The OPR1000 made Korea both achieve nuclear power technology self-reliance and own independently designed nuclear plant model. The OPR1000 incorporated new and verified technology features in enhanced safety and operability, simplified design and narrower operational margins, and remarkably increased convenience in construction, operation and maintenance resulted from the applying the human engineering.
The probabilistic safety assessments, which are used to assess a plant's capacity to respond to accidents, indicated that the OPR1000 decreased its core damage frequency to below one-tenth compared with other reactors, suggesting a marked increase in safety.
The improved OPR1000 upgraded in the areas of safety, economy, operability and remedial features through the advanced technologies such as the design of an Integrated Head Assembly, a permanent pool seal, the installation of reverse-osmosis liquid waste treatment facilities, passive catalytic hydrogen recombiners and sharing type of placement technique raised international competitiveness outstandingly.

## Advanced Power Reactor 1400(APR1400)

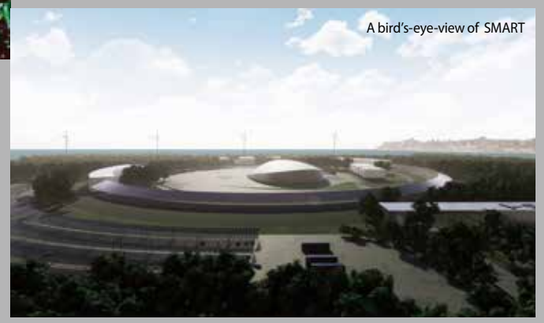
The APR1400, the Korean indigenous model, 1400MW reactor, featuring remarkably improved safety, high profile technology, operational convenience and economy has many kinds of design characteristics including simplified design, increased design margin, and human engineering, all of which are geared towards enhancing accident mitigation. The multiple safety injection and safe shutdown systems and four-train arrangement technology reduced the possibility of core damage. The reactor is equipped with the facility to prevent and mitigate severe accidents. Along with this advanced model, KEPCO E&C is trying to better develop its design technology to apply the design concept of shortened construction period, reinforced seismic design criteria (SSE: 0.3g) and a 60-year design life to the design.

## CANDU-PHWR Nuclear Power Plant

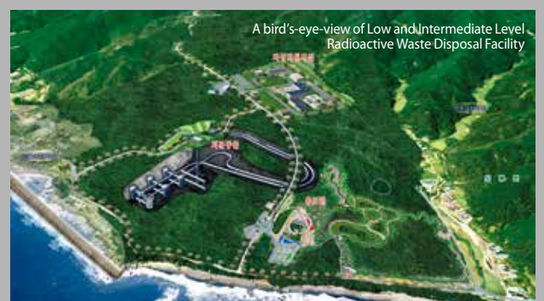
KEPCO E&C has carried out design and engineering and related services for Wolsong Units 2,3&4 and exported Abnormal Operating Manual design technology for the Qinshan Nuclear Power Plant Units 1 and 2 in China.


Hanbit Nuclear Power Plant


Wolsong Nuclear Power Plant


A bird's-eye-view of SMART

KEPCO E&C's SMALL MODULAR REACTOR (SMR)


A bird's-eye-view of Low and Intermediate Level Radioactive Waste Disposal Facility

## Other Nuclear Services

### Decommissioning

The permanent shutdown and decommissioning of Kori Unit 1, the Korea's first nuclear power plant, has been finalized to draw high public interest in decommissioning of nuclear power plants. Accordingly, KEPCO E&C has also prepared mid to long-term technological development strategy to decommission nuclear power plants. First of all, KEPCO E&C has participated in decommissioning of 'TRIGA MARK II' and 'TRIGA MARK III' to complete accumulating the real experience and data related to decontamination such as disposal of radioactive waste. Based on this, we are developing core technology in preparation for nuclear power plant decommissioning market, and proceeding technology transfer project, which includes training nuclear power plant decommissioning experts, and transferring decommissioning information technology with PreussenElektra Technology (Germany), and Westinghouse (U.S.A).

### Development of SMART (System-integrated Modular Advanced ReacTor)

KEPCO E&C carries out comprehensive design and reactor design support as an investor as well as a reactor developer for the SMART reactor development project, which is a state research task, under the supervision of KAERI(Korea Atomic Energy Research Institute).

### Operations and Maintenance Services

With regard to 24 nuclear power plants currently operating in Korea, KEPCO E&C, as a safeguard of nuclear power, is conducting technical examination for design improvement and providing timely technical support to ensure the safety of equipment, prevent the failure and suspension of operation, and improve operational availability. Regarding the life extention, KEPCO E&C has successfully improved the design for various facilities to secure the safety of Kori Unit 1, and supports the comprehensive design for the continuous operation of Wolsong Unit 1. KEPCO E&C, as an architect engineering company, is also undertaking its role and responsibility for maintaining required as the plants are growing old, which includes the activities, such as design, processing, construction supervision, and regulatory compliance support, to improve the operational capacity and replace the major equipment.

### Radioactive Waste Management

KEPCO E&C participates in projects related to high-medium-low level radioactive waste management, water desalinization and the decommissioning of nuclear power facilities. KEPCO E&C carries out total engineering services for the 1st phase (underground silo of 100,000 drums) and the 2nd phase construction project (surface disposal of 125,000 drums) containing low and intermediate level radioactive waste treatment facilities.

### KEPCO E&C's SMALL MODULAR REACTOR (SMR)

BANDI is an advanced SMR with inherent Safety and Enhanced Operability, being developed based on KEPCO E&C's proven technologies and extensive experience accumulated over 40 years of commercial nuclear power plant design. BANDI mounted on the floating barges can supply clean heat, electricity and waterto remote areas, islands or offshore plants. If collaborated with other industrial sectors, it can also offer various new business models.

# THERMAL POWER

KEPCO E&C has developed diverse thermal power plant engineering technologies to satisfy the various needs of the electric power market. Thirty-four 500MW Standard SC (USC) Coal Fired Power Plants and four 800MW Standard USC Coal Fired Power Plants are currently in-service. Six units applying our 1,000MW USC Coal Fired Power Plant engineering technology are under construction. Five more power plants adopting our Circulating Fluidized Bed (CFB) combustion boiler coal fired power plant engineering technology are in operation or under construction. We have designed 39 combined cycle and cogeneration power plants, beginning with the Seoincheon Combined Cycle Power Plant.


Taean Thermal Power Plant

## 500MW Standard SC Coal Fired Power Plants

KEPCO E&C has developed independently its capability to manage project as well as design technology through successfully performing the activities of the entire construction cycle of 500MW Standard SC (USC) Coal Fired Power Plants from feasibility study to completion of construction. In the architect engineering project for the construction of Boryeong Thermal Power Plant Units 3&4, KEPCO E&C first standardized the basic design, detailed design, procurement, construction, test operation, and supervision processes and procedures. Since then, KEPCO E&C has constructed 34 Standard SC (USC) Coal Fired Power Plants, of which Boryeong Units 3&4 and Taean Units 1~4 were selected as World's Best power plants by “Electric Power International”, while Dangjin Units 1~4 were also recognized as World's Best Projects by “Power Engineering”

These achievements enabled KEPCO E&C to export its basic engineering data and services to Israel's Rutenberg Thermal Power Plant and Canada's Brooks Thermal Power Plant. The 500MW Standard SC (USC) Coal Fired Power Plant was designed to ensure high efficiency under Daily Start/Stop (DSS), Weekeend Start/Stop (WSS), Sharp Load Change, and Partial Load conditions. Dangjin Units 5~8, Taean Units 7&8, Boryeong Units 7&8, and Hadong Units 7&8 adopted greenhouse gas reduction and other eco-friendly technologies, as well as high-efficiency operations and Ultra-Super-Critical (USC) characteristics and steam conditions (246kg/cm2g, 566°C/ 593°C), increasing their efficiency by 2.36% compared with existing models, thereby responding to the UN Framework Convention on Climate Change.

## 800MW Standard USC Coal Fired Power Plants

KEPCO E&C set up design technology for 800MW Standard USC Coal Fired Power Plants while performing the Yeongheung Thermal Power Plant Project, thereby securing its technical leadership and boosting its global profile. This standardization aiming at reducing design and construction cost and schedule, as well as increasing the safety, efficiency, operability and technical sophistication of the plants, was developed to be served as a model for next plants to-be-constructed in the future. Yeongheung Plant Units 1&2, Korea's first 800MW standard USC Coal Fired power plant applied a leveled-up steam temperature of 566°C, which is one level higher up criteria than 538°C of 500MW, so the thermal efficiency of the plants was increased by about 2%.

As for units 3&4, more leveled-up reheated steam criteria of 593°C and state-of-the-art facilities such as high-efficiency denitrification, desulfurization, non-leaking gas re-heater and low-temperature dry electric precipitator were applied and equipped with to preserve pleasant air quality.

By having completed the base-load power plants with high-tech, large-capacity environmental impact reduction facilities exceeding international environmental regulatory standards, KEPCO E&C, domestically, has been able to proactively cope with Korea's increasing electricity demand and public concern regarding the environmental impact of power plants, and internationally had engaged in technical support for construction of TATA group's 4,000MW Ultra Mega Power Plant (UMPP, 800MW x 5) in India.


Yeongheung Thermal Power Plant


Dangjin Thermal Power Plant

## 1000MW USC Coal Fired Power Plants

By undertaking the architect engineering of 1000MW USC coal fired power plant like Dangjin Units 9&10, Shin-Boryeong Units 1&2, Taean Units 9&10, KEPCO E&C has been continuously able to enhance the design technology of a world class eco-friendly coal fired power plant which can reduce greenhouse gas emission as well as quantity of fuel import through achieved high efficiency plant operation, and further help to facilitate the trading of $CO_2$ gas right.

To achieve eco-friendly and highly efficient generation, USC steam temperature was raised up to 600°C for Dangjin units 9&10, Korea's first 1000MW USC coal fired power plants, based on the experience and technology accumulated from the previous design activities on various 500MW and 800MW coal fired power plants.

As a way of coping with the fluctuating supply and demand of coal, this model is designed to employ multi-coal-fired boiler which allows up to 50 % mixing ratio of sub-bituminous coal. To achieve economical and technical operability of turbine generator, 50-inch LSBs, first-ever in 1,000MW power plant, which enable a series four-flow TC4F (60Hz) arrangement, were employed.

## Large Scale USC CFB Coal Fired Power Plants

KEPCO E&C boasts major achievements and expertise in the design of power plants adopting Circulating Fluidized Bed (CFB) combustion boilers that can burn low-class fuels, including local anthracite coal, imported anthracite coal, and sub-bituminous coal, in a cost efficient manner. KEPCO E&C designed Donghae 200MW Thermal Power Plant Units 1&2, each with a capacity of 200MW, the largest units of their kind in the world, back in 1999, as well as the CFB boilers for the Ulsan Petrochemical Industrial Complex.

With these engineering experience, KEPCO E&C carried out the engineering services for Kumho's cogeneration CFB boilers expansion project as well as a feasibility study on diverse CFB-fired power plants in Bayanteeg (Mongolia), Panay and Cebu (the Philippines), and Banko Barat (Indonesia), among others.

KEPCO E&C has completed the engineering project for Yeosue Thermal Plant 340 MW Unit 2 (begun in 2005 and completed in 2012) featuring another application of a CFB boiler. Since 2009, KEPCO E&C has been performing the design work for Samchok Green Power Thermal Power Plant Units 1&2, marking the world's first attempt to combine two world-class 500MW USC CFB boilers, and a 1,000MW 48-inch LSB-applied single turbine under USC steam conditions.

## Combined Cycle & Cogeneration Power Plants

Starting with Seoincheon Combined Cycle Power Plant, KEPCO E&C has thus far executed the design for 39 combined cycle and cogeneration plants, particularly for 19 of those plants, as the prime contractor for architect engineering performing everything from basic planning to test operation. After completing the architect engineering for Seoincheon Combined Cycle Power Plant (238MW x 8), KEPCO E&C improved engineering technology for increasing functionality and efficiency and successfully completed the architect engineering for the subsequent combined cycle power plants.

As for the overseas market, KEPCO E&C has performed the architect engineering for various combined cycle power plants such as in Nigeria, Libya, and the UAE, as well as owner's engineering services for the construction of the combined cycle power plants (600MW class x 2) located in Ilijan, the Philippines. As such, KEPCO E&C continuously make efforts to design power plants more advanced, reliable and economical. Furthermore, KEPCO E&C has accumulated know-how from years of experience on cogeneration and district heating, enabling it to conduct thermal demand analysis, feasibility studies, and the basic planning and design for cogeneratoion power plants constructed in newly developing residential areas. KEPCO E&C also performed the architect engineering, construction and test operation of the Ilsan Cogeneration Power Plant (300MW class x 1).

# NEW & RENEWABLE ENERGY

We specialize the development of new and renewable energy sources, including photovoltaics, solar heat, wind power, biomass, waste, hydroelectric, coal gasification and liquefaction, and marine/tidal energy. We also strategically execute energy-efficiency projects such as smart grids in conjunction with research, devising future alternatives to energy sources in a bid to address future paradigm shifts in the international energy industry. Our achievements in this sector include the architect engineering for the Jeju Hankyung Wind Farm; the design and engineering for various TDF and RDF-fired cogeneration power plants; the architect engineering for a 300MW Integrated Gasification Combined Cycle Power Plant; and for Synthetic Natural Gas (SNG) facilities; and feasibility study. While accumulating the experience through these projects, We have secured a reputation as a friend of the environment and are fostering our future energy competitiveness.

Top | Photovoltaic/Solar Heat Power Plant Bottom | Jeju Hankyung Wind Farm

# ENVIRONMENT

We are making every possible effort to conserve and protect environment. Armed with the world-class technologies for anti-pollution and environmental impact reduction facilities, we conduct environmental impact assessments. We rank No.1 in the performance record of this sector in Korea.

As of 2014, we performed engineering services for fuel gas desulfurization system of 55 thermal units totalling to 28,255MW in terms of capacity. And also as a participant in G-7 Environmental Technology Development Project, we performed turnkey projects for 9 units of the KEPAR (Korea Electric Power Absorption Reactor) project successfully.

We performed Korea's first turnkey flue gas denitrification project for the Namjeju Thermal Power Plant as well as the feasibility study, design, and test operation for flue gas denitrification system in nearly all domestic thermal power plants.

We have also accumulated diverse CDM(Clean Development Mechanism) project achievements, and abundant engineering and construction experience in the overall environmental market, including water pollution control and waste management systems, enabling us to play a leading role of developing a broad range of clean technologies.


Boryeong Thermal Power Plant Units 1 and 2 flue gas desulfurization systems


KoNOx® system in Sithe Power Plant


Dangjin Thermal Power Plant's Wastewater Treatment System


Sudokwon Landfill Gas(LFG) Power Plant(CDM)

# EPC
# Engineering, Procurement and Construction

We are aiming to become a global power EPC company. We have consolidated our EPC base through successfully conducting large-scale projects ranging from designing to test running nuclear and thermal power plants. We have also participated in super-large scale infrastructure construction projects such as the Korea Train Express (KTX Seoul-Busan) project and the Incheon International Airport project. These projects enabled us to develop 12 types of construction management procedural manuals, as well as construction management execution plans and guidelines on construction management, and to build a Web-based total project management system. As such, we have secured standardized project management systems, enabling us to operate a perfect project management support system for any project. Based on the systematic project management capability and abundant human resources. We have been opening a new chapter as a Global Power EPC Leader by successfully acquiring the Takoradi T2 Expansion EPC Project in Ghana, the CIPREL IV Volet B EPC Project in Cote d'Ivoire and Osan Cogeneration EPC Project in Korea.

Top (left) | **Osan Power Plant** Top (right) | **Incheon International Airport**
Bottom (left) | **The Takoradi T2 expansion in Ghana** Bottom (right) | **The Ciprel IV Volet B in Cote d'Ivorie**

# KEPCO E&C's PROMISE

- ENERGY SOLUTION PARTNER
- BUSINESS ETHICS
- SOCIAL CONTRIBUTION

## KEPCO E&C's PROMISE

# Energy Solution Partner

- **Engineering to solution**
  Pursue Customer-Oriented Comprehensive Consulting
- **Power to Energy**
  Advance into Next Generation Energy Business

## Solution

### Engineering

| Value Chain / Scope | Funding | Consulting | Engineering | Procurement | Construction | O&M | Follow-up Management |
|---|---|---|---|---|---|---|---|
| Power | Financing, Establish Master Plan<br>Site Selection Consulting,<br>Build Infrastructure | | **Engineer Nuclear Energy and Thermal Plant, EPCM,<br>Transmission & Distribution / Substation** | | | | Decommissioning,<br>Reprocessing, etc. |
| | | | | | | **O & M** | |
| | | | | | | Owner's Engineering, Risk Management, Safety Consulting, Technological Advice, etc. | |
| Energy | | | | | | Environment and Renewable Energy | Decontamination,<br>Management of<br>Nuclear Waste, etc. |
| | | | | | | Nuclear Marine Power Plant | |
| | | | | | | Nuclear Fusion, Hydrogen, etc. | |

### Engineering to Solution

**Pursue Customer-Oriented Comprehensive Consulting**

- Financing, Establish Master Plan, Site Selection Consulting, Build Infrastructure including a System, etc.
- Owner's Engineering, Technological Advice, Risk Management, Safety Consultiong

**Expansion of Nuclear power Follow-up Management Business**

- Decommissioning, Reprocessing, etc.

### Power to Energy

**Advance into Next Generation Energy Business**

- Renewable Energy
- Nuclear Fusion, Hydrogen, etc.

**Expand into Other Energy Field and Environment Business**

- Nuclear Marine Power Plant
- Decontamination, Management of Nuclear Waste, etc.


# BUSINESS ETHICS

## Ethical Management-Clean Company

We fulfill our corporate and social responsibilities for achieving sustainable growth, based on ethical management principles. Since we established our Code of Ethics in April, 2003, we have been hosting Ethical Management Conventions frequently. In this manner, we have laid the foundation for establishing our company-wide ethical management system. We also implement the Code of Conduct for Ethics management across the company, as well as a self-assessment system for employees on a weekly basis, in an effort to encourage staff members to continue practicing ethical management. We have also established the Best Ethics Management system, which reflects the requirements of ISO26000, the UN Global Compact, and sustainable management, thereby boosting our global competitiveness.

We are committed to becoming a global company creating superb values by complying with international standards, and transparently sharing all our activities and achievements together with stakeholders to realize sustainable growth management ethically, regarding ethics as the highest principles to which all of our employees must adhere.

Supplying Technology to Our Customers, Sharing Friendship with Our Neighbors

We are committed to fulfilling our Social Responsibility. Our True Love Service Corps, which was launched in August 2005 under the slogan of "Supplying Technology to Our Customers, Sharing Friendship with Our Neighbors" practices the values of love, sharing by participating in volunteer services. All employees raise a certain amount of money through fund-raising activities on a monthly basis, for which the company provides 200% matching funds to provide funds for its charity efforts. All employees thus actively participate in the True Love Service Corps. Embracing a corporate philosophy founded on "the synergistic and harmonious convergence of humanity, the environment and technology", we have endeavored to create a more healthy living environment, manage sustainable growth and economic development, while at the same time serving people and the community in a spirit of sharing, "Love, Happiness, Hope and Life."

KEPCO E&C 참사랑 봉사단


# SOCIAL CONTRIBUTION

## Statement of Financial Position

Unit : US Dollars

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Assets** | | | |
| **Current Assets** | **350,597,564** | **296,990,190** | **216,314,027** |
| Cash and cash equivalents | 40,452,201 | 35,916,427 | 25,478,226 |
| Current financial assets | 41,233,485 | 3,208,734 | 3,212,453 |
| Trade and other receivables | 56,672,109 | 50,625,838 | 31,632,896 |
| Income tax assets | 0 | 0 | 55,558 |
| Due from customers for contranct work | 183,086,868 | 184,363,620 | 135,327,978 |
| Current non-financial assets | 16,139,323 | 9,787,057 | 6,452,797 |
| Assets held for sale | 13,013,578 | 13,240,518 | 14,154,119 |
| **Non-current assets** | **312,508,356** | **347,295,539** | **378,801,360** |
| Non-current financial assets | 25,222,730 | 26,703,143 | 29,618,425 |
| Long-term trade and other receivables | 7,597,254 | 8,016,970 | 23,970,331 |
| Property, plant and equipment | 191,889,450 | 203,014,670 | 228,082,800 |
| Intangible assets | 19,373,411 | 21,245,784 | 28,079,750 |
| Investment properties | 0 | 0 | 0 |
| Investments in associate and joint sentures | 3,345,893 | 3,441,259 | 3,603,609 |
| Deferred income tax assets | 31,189,896 | 33,769,876 | 47,149,711 |
| Non-current non-financial assets | 2,624,098 | 2,855,481 | 2,480,989 |
| Define benefit assets | 31,265,624 | 48,248,356 | 15,815,745 |
| **Total Assets** | **663,105,920** | **644,285,729** | **595,115,387** |
| **Liabilities** | | | |
| Current liabilities | 194,033,265 | 193,140,072 | 154,843,005 |
| Non-current liabilities | 44,605,141 | 22,349,148 | 7,163,209 |
| **Total liabilities** | 238,638,406 | **184,941,994** | **209,875,723** |
| **Equity** | | | |
| Share capital | **5,928,339** | **6,031,721** | **6,447,912** |
| Other equity components | -7,979,181 | -8,437,086 | -9,006,614 |
| Retained earnings | 426,518,356 | 431,201,874 | 435,667,875 |
| **Total Equity** | 424,467,514 | **428,796,509** | **433,109,173** |
| **Total liabilities and equity** | **663,105,920** | **644,285,729** | **595,115,387** |

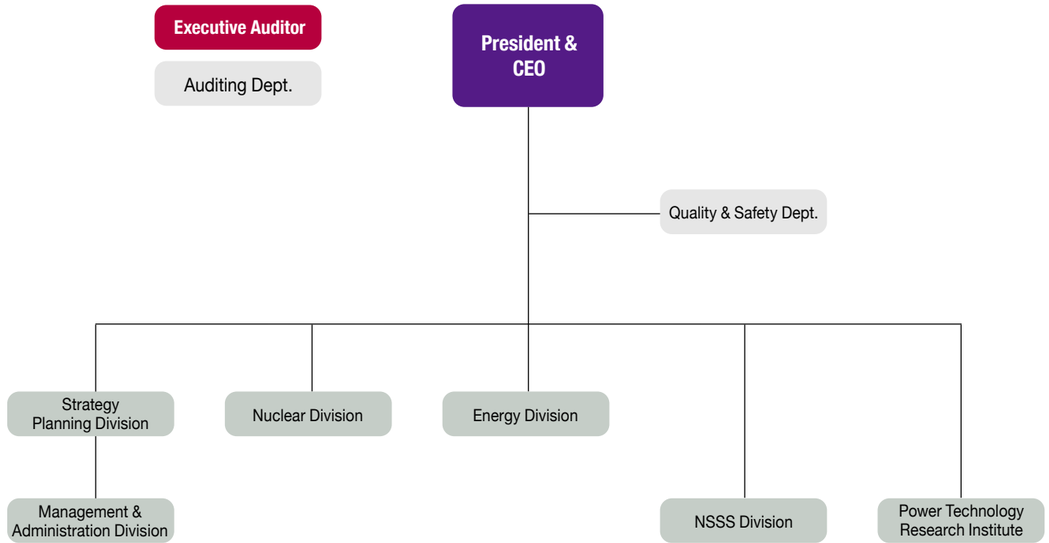
## Income Statement

Unit : US Dollars

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Sales** | **422,748,389** | **398,714,411** | **365,353,556** |
| Cost of sales | 323,566,970 | 311,136,726 | 275,138,733 |
| Gross profit | 99,181,419 | 87,577,685 | 90,214,8235 |
| Selling and administrative expenses | 77,029,722 | (76,577,902) | (81,671,826) |
| **Operating profit** | **22,151,697** | **10,999,783** | **8,542,997** |
| Other income | 8,544,992 | 10,057,041 | 6,407,650 |
| Other expenses | 1,711,278 | 3,371,513 | 2,118,599 |
| Other loss, net | 108,050 | 81,951 | 109,642 |
| Finance income | 5,048,193 | 2,514,888 | 1,652,020 |
| Finance costs | 113,748 | 330,452 | 40,569 |
| Share of loss of associate | 153,200 | 355,715 | 400,488 |
| **Profit before income tax** | **34,181,106** | **20,307,413** | **14,953,629** |
| Income tax expenses | 8,855,801 | (6,140,305) | (1,075,551) |
| **Profit for the year** | **25,325,305** | **14,167,108** | **13,878,078** |
| Other comprehensive income (loss) | -13,954,969 | 16,620,584 | 7,298,371 |
| **Total comprehensive income for the year** | **11,370,336** | **30,787,692** | **21,176,449** |

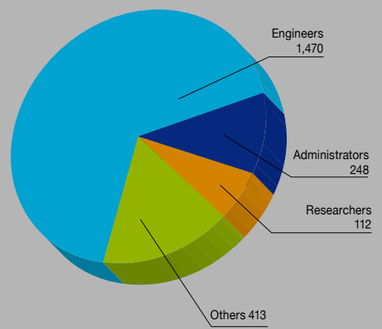
Translated into USD at the rate of ₩1,289.40(2023), ₩1,267.30(2022), ₩1,185.50(2021)

## Organization

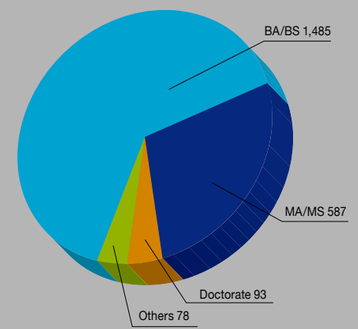



## Manpower

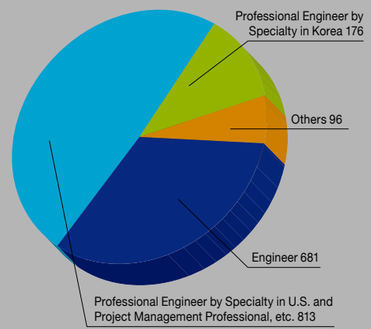
Distribution by Job Classification
2,243




Distribution by Academic Qualifications
2,243




Distribution by Technical Qualifications
1,766




February 1, 2024

# PROJECT LIST

## NUCLEAR POWER

### APR1400 Project

| Power Plant | Location | Capacity(MW) | Design(NSSS/AE) | Construction Period (First Concrete-Commercial Operation) | Status |
|---|---|---|---|---|---|
| Shin-Kori Unit 3 | Ulju, Korea | 1,400 | KEPCO E&C | Oct.2008~Dec.2016 | In Operation |
| Shin-Kori Unit 4 | Ulju, Korea | 1,400 | KEPCO E&C | Oct.2009~Aug.2019 | In Operation |
| Shin-Hanul Unit 1 | Ulchin, Korea | 1,400 | KEPCO E&C | Aug.2012~Aug.2022 | In Operation |
| Shin-Hanul Unit 2 | Ulchin, Korea | 1,400 | KEPCO E&C | Aug.2013~Aug.2023 | In Operation |
| BNPP Unit 1 | Al Barakah, the UAE | 1,400 | KEPCO E&C | Jul.2012~Apr.2021 | In Operation |
| BNPP Unit 2 | Al Barakah, the UAE | 1,400 | KEPCO E&C | Apr.2013~Mar. 2022 | In Operation |
| BNPP Unit 3 | Al Barakah, the UAE | 1,400 | KEPCO E&C | Sep.2014~May 2023 | In Operation |
| BNPP Unit 4 | Al Barakah, the UAE | 1,400 | KEPCO E&C | Jul.2015~May 2024 | Under Construction |
| Shin-Kori Unit 5 | Ulju, Korea | 1,400 | KEPCO E&C | Apr.2017~Oct.2024 | Under Construction |
| Shin-Kori Unit 6 | Ulju, Korea | 1,400 | KEPCO E&C | Oct.2018~Oct.2025 | Under Construction |

### OPR1000 Project

| Power Plant | Location | Capacity(MW) | Design(NSSS/AE) | Construction Period (First Concrete-Commercial Operation) | Status |
|---|---|---|---|---|---|
| Hanbit Unit 3 | Yonggwang, Korea | 1,000 | KEPCO E&C/WEC | Dec.1989~Mar.1995 | In Operation |
| Hanbit Unit 4 | Yonggwang, Korea | 1,000 | KEPCO E&C/WEC | Jun.1990~Jan.1996 | In Operation |
| Hanul Unit 3 | Ulchin-gun, Korea | 1,000 | KEPCO E&C | Jul.1993~Aug.1998 | In Operation |
| Hanul Unit 4 | Ulchin-gun, Korea | 1,000 | KEPCO E&C | Nov.1993~Dec.1999 | In Operation |
| Hanbit Unit 5 | Yonggwang, Korea | 1,000 | KEPCO E&C | Jun.1997~May 2002 | In Operation |
| Hanbit Unit 6 | Yonggwang, Korea | 1,000 | KEPCO E&C | Nov.1997~Dec.2002 | In Operation |
| Hanul Unit 5 | Ulchin, Korea | 1,000 | KEPCO E&C | Oct.1999~Jul.2004 | In Operation |
| Hanul Unit 6 | Ulchin, Korea | 1,000 | KEPCO E&C | Oct.2000~Apr.2005 | In Operation |
| Shin-Kori Unit 1 | Gijang, Korea | 1,000 | KEPCO E&C | Jun.2006~Feb.2011 | In Operation |
| Shin-Kori Unit 2 | Gijang, Korea | 1,000 | KEPCO E&C | Jun.2007~Dec.2011 | In Operation |
| Shin-Wolsong Unit 1 | Gyeongju, Korea | 1,000 | KEPCO E&C | Dec.2007~Mar.2012 | In Operation |
| Shin-Wolsong Unit 2 | Gyeongju, Korea | 1,000 | KEPCO E&C | Dec.2008~Aug.2013 | In Operation |

### CANDU-PHWR Project

| Power Plant | Location | Capacity(MW) | Design(NSSS/AE) | Construction Period (First Concrete-Commercial Operation) | Status |
|---|---|---|---|---|---|
| Wolsong Unit 2 | Gyeongju, Korea | 713 | KEPCO E&C/AECL | Sep.1992~Jul.1997 | In Operation |
| Wolsong Unit 3 | Gyeongju, Korea | 715 | KEPCO E&C/AECL | Apr.1994~Jul.1998 | In Operation |
| Wolsong Unit 4 | Gyeongju, Korea | 715 | KEPCO E&C/AECL | Aug.1994~Oct.1999 | In Operation |

## THERMAL POWER

### 500MW Coal Fired Power Plant Project

| Power Plant | Location | Capacity(MW) | Design | Construction Period | Status |
|---|---|---|---|---|---|
| Boryeong Units 3~6 | Boryeong, Korea | 500×4 | KEPCO E&C | Jun.1985~Jun.1994 | In Operation (SC) |
| Taean Units 1~6 | Taean, Korea | 500×6 | KEPCO E&C | Dec.1987~Sep.2002 | In Operation (SC) |
| Samcheonpo Units 3&4 | Goseong, Korea | 560×2 | KEPCO E&C | Mar.1989~Sep.1994 | In Operation (Sub. Critical) |
| Dangjin Units 1~4 | Dangjin, Korea | 500×4 | KEPCO E&C | Nov.1989~Jun.2001 | In Operation (SC) |
| Hadong Units 1~6 | Hadong, Korea | 500×6 | KEPCO E&C | Nov.1989~Sep.2001 | In Operation (SC) |
| Samcheonpo Units 5&6 | Goseong, Korea | 500×2 | KEPCO E&C | Jan.1993~May 1998 | In Operation (SC) |
| Dangjin Units 5&6 | Dangjin, Korea | 500×2 | KEPCO E&C | Sep.2002~Jun.2006 | In Operation (USC) |
| Dangjin Units 7&8 | Dangjin, Korea | 500×2 | KEPCO E&C | Nov.2003~Nov.2007 | In Operation (USC) |
| Taean Units 7&8 | Taean, Korea | 500×2 | KEPCO E&C | Mar.2004~Aug.2007 | In Operation (USC) |
| Boryeong Units 7&8 | Boryeong, Korea | 500×2 | KEPCO E&C | Sep.2002~Jul.2009 | In Operation (USC) |
| Hadong Units 7&8 | Hadong, Korea | 500×2 | KEPCO E&C | Sep.2003~Sep.2009 | In Operation (USC) |
| Bukpyeong Units 1&2 | Donghae, Korea | 595×2 | KEPCO E&C | Dec.2011~Jul.2016 | In Operation(USC) |

### 800MW Coal Fired Power Plant Project

| Power Plant | Location | Capacity(MW) | Design | Construction Period | Status |
|---|---|---|---|---|---|
| Yeongheung Units 1&2 | Ongjin, Korea | 800×2 | KEPCO E&C | Sep.1994~Mar.2005 | In Operation(SC) |
| Yeongheung Units 3&4 | Ongjin, Korea | 870×2 | KEPCO E&C | Feb.2003~Jun.2009 | In Operation(USC) |

### 1000MW Coal Fired Power Plant Project

| Power Plant | Location | Capacity(MW) | Design | Construction Period | Status |
|---|---|---|---|---|---|
| Dangjin Units 9&10 | Dangjin, Korea | 1,000×2 | KEPCO E&C | Oct.2007~Sep.2016 | In Operation (USC) |
| Shin-Boryeong Units 1&2 | Boryeong, Korea | 1,000×2 | KEPCO E&C | Jan.2011~Dec.2017 | In Operation (USC) |
| Taean Units 9&10 | Taean, Korea | 1,000×2 | KEPCO E&C | Jun.2011~Mar.2017 | In Operation (USC) |
| Shin-Seocheon Unit 1 | Seocheon, Korea | 1,000×1 | KEPCO E&C | Jun.2014~Jun.2021 | Under Construction(USC) |
| Gangneung Anin Units 1&2 | Gangneung, Korea | 1,040×2 | KEPCO E&C | Feb.2014~Sep.2020 | Under Construction(USC) |
| Goseong HI Units 1&2 | Goseong, Korea | 1,040×2 | KEPCO E&C | May.2014~Jan.2022 | Under Construction(USC) |
| Samchok Green Power 1&2 | Samchok, Korea | 1,000×2 | KEPCO E&C | Sep.2009~Aug.2018 | In Operation(USC) |

### Large Scale CFB Coal Fired Power Plant Project

| Power Plant | Location | Capacity(MW) | Design | Construction Period | Status |
|---|---|---|---|---|---|
| Donghae Units 1&2 | Donghae, Korea | 200×2 | KEPCO E&C | Feb.1993~Sep.1999 | In Operation |
| Yeosu Unit 2 | Yeosu, Korea | 340×1 | KEPCO E&C | Dec.2005~Mar.2012 | In Operation |

### Combined Cycle & Cogeneration Power Plant Project

| Power Plant | Location | Capacity (MW) | Design | Construction Period | Plant Components | Status |
|---|---|---|---|---|---|---|
| Seoincheon CCPP | Incheon, Korea | 1,900 | KEPCO E&C | Mar.1989~Mar.1993 | (1GT+1HRSG+1ST)×8units | ● Operation |
| Pyongtaek CCPP | Pyongtaek, Korea | 520 | KEPCO E&C | Apr.1991~Sep.1994 | (4GT+4HRSG+1ST)×1unit | ● Operation |
| Ilsan CCPP | Goyang, Korea | 300 | KEPCO E&C | Sep.1993~Jun.1996 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| Sinincheon CCPP | Incheon, Korea | 2,000 | KEPCO E&C | Nov.1993~Sep.1997 | (2GT+2HRSG+1ST)×4units | ● Operation |
| Jeju Hallim Gas Turvine | Hallim, Korea | 35 | KEPCO E&C | May 1994~Sep.1995 | 1GT | ● Operation |
| Ulsan CCPP Unit 2 | Ulsan, Korea | 1,000 | KEPCO E&C | Feb.1995~Sep.1997 | (2GT+2HRSG+1ST)×2units | ● Operation |
| Busan CCPP | Busan, Korea | 2,160 | KEPCO E&C | May 1996~Mar.2004 | (2GT+2HRSG+1ST)×4units | ● Operation |
| GS-Bugok CCPP Unit 1 | Dangjin , Korea | 500 | KEPCO E&C | May 1997~Apr.2001 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| Incheon CCPP Unit 1 | Incheon, Korea | 500 | KEPCO E&C | Dec.2001~Sep.2005 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| Kumho TDF Cogeneration | Yeosu, Korea | 120 | KEPCO E&C | Sep.2004~May 2009 | 1ST | ● Operation |
| GS-Bugok CCPP Unit 2 | Dangjin, Korea | 500 | KEPCO E&C | Nov.2005~Feb.2008 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| AFAM-V I CCPP | Afam, Nigeria | 650 | KEPCO E&C | Nov.2005~Jun.2010 | (3GT+3HRSG+1ST)×1unit | ● Operation |
| Incheon CCPP Unit 2 | Incheon, Korea | 500 | KEPCO E&C | Apr.2006~Sep.2009 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| Misurata CCPP | Misurata, Lybia | 750 | KEPCO E&C | Aug.2007~Jun.2011 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| Benghazi CCPP | Benghazi, Lybia | 750 | KEPCO E&C | Aug.2007~Jun.2011 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| POSCO CCPP Units 5&6 | Incheon, Korea | 1,000 | KEPCO E&C | Apr.2008~Sep.2011 | (2GT+2HRSG+1ST)×2units | ● Operation |
| Shuweihat S2 CCPP | Abu Dhabi, the UAE | 1,500 | KEPCO E&C | Oct.2008~Sep.2011 | (2GT+2HRSG+1ST)×2units | ● Operation |
| Sejong Cogeneration | Yeongi, Korea | 500 | KEPCO E&C | Aug.2010~Feb. 2014 | (1GT+1HRSG+1ST)×1unit | ● Operation |
| S3 Combine Cycle | UAE | 1,600 | KEPCO E&C | Mar.2011~Jun. 2014 | (2GT+2HRSG+1ST)×2units | ● Operation |
| Mokdong Cogeneration | Seoul, Korea | 20 | KEPCO E&C | Jun.1984~Jun.1986 | 1ST | ● Operation |
| Banwol Cogeneration | Ansan, Korea | 51 | KEPCO E&C | Feb.1985~Mar.1989 | 1ST | ● Operation |
| Shinpoong Paper MFG Cogeneration | Pyongtaek, Korea | 12 | KEPCO E&C | May 1985~Dec.1986 | 1ST | ● Operation |
| Lotte Jamsil Cogeneration | Seoul, Korea | 30 | KEPCO E&C | Mar.1986~Apr.1988 | 5DG | ● Operation |
| Ulsan Petrochemical Cogeneration | Ulsan, Korea | 40 | KEPCO E&C | Nov.1987~Jun.1990 | 1ST | ● Operation |
| Gumi Cogeneration | Gumi, Korea | 85 | KEPCO E&C | Mar.1988~Nov.1991 | 1ST | ● Operation |
| Kumho Cogeneration | Yeosu, Korea | 25 | KEPCO E&C | Apr.1988~Jun.1990 | 1ST | ● Operation |
| Bundang Cogeneration | Seongnam, Korea | 590 | KEPCO E&C | Feb.1990~Sep.1993 | (5GT+5HRSG+1ST)×1unit | ● Operation |
| Anyang Cogeneration | Anyang, Korea | 470 | KEPCO E&C | Feb.1990~Sep.1993 | (4GT+4HRSG+1ST)×1unit | ● Operation |
| Bucheon Cogeneration | Bucheon, Korea | 470 | KEPCO E&C | Feb.1990~Dec.1993 | (3GT+3HRSG+1ST)×1unit | ● Operation |
| Ilsan Cogeneration | Goyang, Korea | 630 | KEPCO E&C | Feb.1990~Dec.1993 | (4GT+4HRSG+1ST)×1unit | ● Operation |
| Ilijan CCPP | Ilijan, the Philippines | 1,200 | KEPCO E&C | Jun.1999~Sep.2002 | (2GT+2HRSG+1ST)×2units | ● Operation |
| Yulchon CCPP | Suncheon, korea | 550 | KEPCO E&C | Oct.2002~Jun.2005 | (2GT+2HRSG+1ST)×1unit | ● Operation |
| GS Bugok Combined Cycle Unit 3 | Dangjin, Korea | 410 | KEPCO E&C | Jan. 2011~Dec. 2013 | (1GT+1HRSG+1ST)×1unit | ● Operation |
| Seoul CCPP Units 1&2 | Seoul, Korea | 400X2 | KEPCO E&C | Aug.2007~Present | (1GT+1HRSG+1STR)X2units | ● Under construction |
| Dongducheon CCPP Units 1&2 | Dongducheon, Korea | 858X2 | KEPCO E&C | Sep.2011~Mar.2015 | (2GT+2HRSG+1STR)X2units | ● Operation |
| Ulsan CCPP Unit 4 | Ulsan, Korea | 800 | KEPCO E&C | Oct.2011~Oct.2014 | (2GT+2HRSG+1STR)X1unit | ● Operation |
| Pyeongtaek CCPP Unit 2 | Pyeongtaek, Korea | 868 | KEPCO E&C | Nov.2011~Feb.2015 | (2GT+2HRSG+1STR)X1unit | ● Operation |
| Ghana Takoradi T2 | Ghana in Africa | 220 | KEPCO E&C | Dec.2011~Sep.2015 | (2GT+2HRSG+1STR)X1unit | ● Operation |
| Osan Cogeneration | Osan, Korea | 474 | KEPCO E&C | Apr.2013~Feb.2016 | (1GT+1HRSG+1STR)X1unit | ● Operation |
| Cote d'Ivoire Ciprel | Cote d'Ivoire | 340 | KEPCO E&C | Sep.2013~Dec.2015 | (2GT+2HRSG+1STR)X1unit | ● Operation |
| Yeongnam Nautural Gas | Ulsan, Korea | 400 | KEPCO E&C | Aug.2013~May.2018 | (1GT+1HRSG+1STR)X1unit | ● Operation |
| Jeju Cogeneration | Jeju, Korea | 200 | KEPCO E&C | Mar.2015~Dec.2018 | (1GT+1HRSG+1STR)X2unit | ● Operation |
| Namjeju Cogeneration | Seogwipo, Jeju, Korea | 125 | KEPCO E&C | Apr.2018~Present | (2GT+2HRSG+1STR)X1unit | ● Under construction |

● General Design ● 2Planning & Basic Design ● Technical Management & Support ● EPC

## ENVIRONMENT

### Flue Gas Desulfurization System Project

| Project | Client | Capacity | Project period | Style |
|---|---|---|---|---|
| Boryeong Units 3~6(*S) | KEPCO | 500MW×4 | Jun.1985~Jul.1999 | Packed Tower |
| Taean Units 1~6(S) | KEPCO | 500MW×6 | Dec.1987~Sep.2002 | Open Spray/Tray |
| Hadong Units 1~6(S) | KEPCO | 500MW×6 | Nov.1989~Sep.2001 | Open Spray/Tray |
| Dangjin Units 1~4(S) | KEPCO | 500MW×4 | Nov.1989~Jun.2001 | Open Spray |
| Donghae Units 1&2(S) | KEPCO | 200MW×2 | Feb.1993~Sep.1998 | Dry Injection |
| Yeongheung Units 1&2(S) | KEPCO | 800MW×2 | Sep.1994~Dec.2004 | Open Spray |
| Yeoungdong Units 1&2(*T) | KEPCO | (125+200)MW | Nov.1994~Dec.1998 | KEPAR |
| Seocheon Units 1&2(T) | KEPCO | 200MW×2 | Nov.1996~Dec.1998 | KEPAR |
| Dangjin Units 5~8(S) | Korea East-West Power | 500MW×4 | Nov.2000~Mar.2008 | DCFS |
| Samcheonpo Units 1~4(S) | Korea South-East Power | 560MW×4 | May 2001~Mar.2007 | Open Spray |
| Taean Units 7&8(S) | Korea Western Power | 500MW×2 | Aug.2002~Jun.2008 | Open Spray |
| Boryeong Units 7&8(S) | Korea Midland Power | 500MW×2 | Sep.2002~Mar.2009 | Open Spray |
| Pyeongtaek Unit 1(T) | Korea Western Power | 350MW | Dec.2002~Nov.2005 | KEPAR |
| Yeongheung Units 3&4(S) | Korea South-East Power | 870MW×2 | Feb.2003~Jun.2009 | Open Spray |
| Hadong Units 7&8(S) | Korea Southern Power | 500MW×2 | Sep.2003~Jun.2009 | Open Spray |
| Namjeju Units 3&4(T) | Korea Southern Power | 100MW×2 | Jan.2005~Mar.2007 | KEPAR |
| Boryeong Units 1&2(T) | Korea Midland Power | 500MW×2 | Dec.2005~Aug.2010 | KEPAR |
| Dangjin Units 9&10(S) | Korea East-West Power | 1,000MW×2 | Oct.2007~Dec.2016 | Open Spray |
| Shin-Boryeong Units 1&2(S) | Korea Midland Power | 1,000MW×2 | Jan.2011~Feb.2016 | Open Spray |
| Taean Units 9&10(S) | Korea Western Power | 1,000MWX2 | May.2011~Dec.2017 | DCFS |
| Bukpyeong Units 1&2(S) | GS Donghea Electric Power Co., Ltd. | 595MWX2 | Mar.2011~Dec.2017 | DCFS |
| POSPower(S) | POSPower | 1,050MWX2 | Jun.2013~Present | Later |
| Gangneung Anin Units 1&2(S) | Samsung C&T | 1,040MWX2 | Feb.2014~Present | Open Spray |
| Shin-seocheon Unit 1(S) | KOMIPO | 1,018MWX1 | Jun.2014~Present | Later |
| Goseong HI Units 1&2(S) | SK E&C | 1,040MWX2 | Oct.2014~Present | Later |

* S : System Design Project T : Turnkey Project

### Flue Gas Denitrification System Project

| Project | Client | Project Period |
|---|---|---|
| DeNOx System Design for Yeongheung Units 1&2 | Korea South-East Power | Sep.1994~Dec.2004 |
| DeNOx System for Namjeju Units 1~4 (Turnkey Project) | KEPCO | Feb.1999~May 2000 |

| | | |
|---|---|---|
| DeNOx System Design for Seoul Units 4&5 | Korea Midland Power | Feb.2000~May 2002 |
| DeNOx System Design for Incheon Units 1&2 | Korea Midland Power | Mar.2000~Jun.2002 |
| DeNOx System Design for Dangjin Units 5~8 | Korea East-West Power | Nov.2000~Mar.2008 |
| DeNOx System Design for Ulsan Units 4~6 | Korea East-West Power | Jan.2001~Mar.2003 |
| DeNOx System Design for Samcheonpo Units 3&4 | Korea South-East Power | May 2001~Mar.2007 |
| System Design for Taean Units 7&8 | Korea Western Power | Aug.2002~Jun.2008 |
| DeNOx System Design for Boryeong Units 7&8 | Korea Midland Power | Sep.2002~Mar.2009 |
| DeNOx System Design for Yeongheung Units 3&4 | Korea South-East Power | Feb.2003~Jun.2009 |
| DeNOx System Design for Hadong Units 7&8 | Korea Southern Power | Sep.2003~Jun.2009 |
| DeNOx System Design for Dangjin Units 1~4 | Korea East-West Power | Oct.2003~Jul.2007 |
| DeNOx System Design for Hadong Units 1~6 | Korea Southern Power | Dec.2003~Sep.2007 |
| DeNOx System Design for Incheon Units 3&4 | Korea Midland Power | Mar.2004~Mar.2006 |
| DeNOx System Design for Boryeong Units 1&2 | Korea Midland Power | Jul.2006~Jul .2009 |
| DeNOx System Design for Honam Units 1&2 | Korea East-West Power | Aug.2008~Mar.2011 |
| DeNOx System Design for Samcheonpo Units 1&2 | Korea South-East Power | Sep.2008~Mar.2009 |
| DeNOx System Design for Shin-Boryeong Units 1&2 | Korea Midland Power | Jan. 2011~Present |
| DeNOx System Design for Dangjin Units 9&10 | Korea East-West Power | Oct.2007~Apr.2017 |
| DeNOx System Design for Samchok Green Power Units 1&2 | Korea Southern Power | Sep.2009~Aug.2018 |
| DeNOx System Design for Taean Units 9&10 | Korea Western Power | May.2011~Dec.2017 |
| DeNOx System Engineering for Bukpyeong Units 1&2 | GS Donghae Electric Power Co., Ltd. | Mar.2011~Dec.2018 |
| DeNOx System Engineering for POSPower | POSPower | Jun.2013~Present |
| DeNOx System Engineering for Gangneung Anin Units 1&2 | Samsung C&T | Jan.2014~Present |
| DeNOx System Engineering for Shin-Seocheon Unit 1 | KOMIPO | Jun.2014~Present |
| DeNOx System Engineering for Goseong HI Units 1&2 | SK E&C | Oct.2014~Present |

### KoNOx® (KEPCO E&C DeNOx System) Project

| Project | Client | Completed |
|---|---|---|
| Turnkey Project, Low-Temp DeNOx System for Bundang CCPP Unit 6 | Korea South-East Power | Nov.2003 |
| Low-Temp Catalyst for Gwacheon Resource Recovery Facility | Gwacheon Resource Recovery Facility | Nov.2003 |
| Low-Temp Catalyst for Samsung Corning Gumi Factory | Samsung Corning Precision Glass | Dec.2003 |
| Low-Temp Catalyst for Samsung Corning Suwon Factory | Samsung Corning Precision Glass | Dec.2003 |
| Low-Temp Catalyst for HU-CHEMS | HU-CHEMS | Apr.2004 |
| Low-Temp Catalyst for Kumho P&B Chem | Kumho P&B Chem | Nov.2004 |
| Low-Temp Catalyst for Bucheon(Daejang) Resource Recovery Facility | City of Bucheon | Sep.2005 |
| Low-Temp Catalyst for Bucheon(Samjeong) Resource Recovery Facility | City of Bucheon | Sep.2005 |
| Low-Temp Catalyst for Daesung Corp, KoGen Div | Daesung Corp | Dec.2005 |
| US, KEAHOLE ST-7 SCR & Urea Conversion System | HELCO | Jul. 2007 |
| Low-Temp Catalyst for Dongsuh Food Corp. | Dongsuh Food Corp | Oct.2007 |
| Dongwoo Fine-Chem SCR Catalyst Supply Project | Dongwoo Fine-Chem | Mar. 2009 |
| SCR Facility Construction for Sithe Thermal Power Plant | Hynix Semiconductor | Apr.2009 |
| Catalyst Supply for Unit 1 of Yeongheung Thermal Power Plant | Korea South-East Power | Apr.2009 |
| SCR Catalyst Supply for Pangyo Cogeneration Power Plant | Korea District Heating Corp. | Aug.2009 |
| Catalyst Production and Delivery for SCR Facility | TS Coropration | Sep. 2009 |
| Catalyst Production and Delivery for SCR Facility | Heungwon Paper Manufacturing | Sep.2009 |
| U.S. Co-op City Power Plant SCR System | U.S. Co-op City Power Plant | Feb.2010 |
| SCR Reactor Catalyst(KoNOx DRC 30) Supply | Kumho P&B Chem | May 2010 |
| SCR Catalyst Supply | Korea District Heating Corp. (Daegu Branch) | Aug.2010 |
| SCR Catalyst Supply for Pyeongtaek Thermal Power Plant Unit 2 | Korea Western Power | Aug.2010 |
| Basic Design Services for Coal-Fired Thermal Power Plant Fusion System with More than 2 million CMH in Capacity | Hanmo Corporation | Sep.2010 |
| Catalyst Powder Supply for Ulsan Thermal Power Plant Untis 4 and 6 | Korea East-Western Power | Nov.2010 |
| Suwon SCR Catalyst Performance Analysis Services | Korea District Heating Corp. | Dec.2010 |
| Catalyst Powder Supply for Samcheonpo Thermal Power Plant Unit 4 | Korea South-East Power | Feb.2011 |
| Urea Handling System Supply for Saudi Arabia's Rabigh VI SCR | Doosan Heavy Industries & Construction | Jul.2012 |
| Geoje Municipal Waste Incineration Facility SCR Catalyst Supply Project | City of Geoje | Aug. 2011 |
| De-Nox SCR System Supply for Pohang LNG CCPP | Posco ICT | Jun.2012 |
| Hybrid SCR De-NOx System Supply for Ulsan Units 4&5 | Korea East-West Power | Aug.2012 |
| Saudi Arabia Yanbu 2 Catalyst Supply Project | Doosan Heavy Industries & Construction | Jun.2014 |

### Waste Management System Project

| Project | Client | Project Period |
|---|---|---|
| Installation of Oil Ash Incinerator in Ulsan TPP | KEPCO | Jul.1993~Jan.1996 |
| Design of Ash Recycling Facility in Samcheonpo TPP | KEPCO | May 1994~Jul.1997 |
| Design of Coal Ash Landfill in Yeongheung TPP | KEPCO | Jan.1995~Jan.1999 |
| Design of Coal Ash Landfill in Dangjin TPP | KEPCO | Jul.1995~Jan.1998 |
| Feasibility Study and Basic Plans of Sudokwon Landfill Gas(LFG) Power Plant Project | KPPS | Dec.1999~Jun.2000 |
| Construction of Geumsan-gun Solid Waste Landfill Site | Environmental Management Corp. | Aug.2000~Feb.2002 |
| Design of Sudokwon Landfill Gas(LFG) Power Plant Project | Hyundai Mobis | Aug.2001~Oct.2002 |
| Construction of Milyang Food Waste/Sewage Treatment Plant | City of Milyang | Jan.2002~Jan.2003 |
| Maintenance & Repair of Suyeong Food Waste/Sewage Treatment Facility | Busan Environmental Facility | Oct.2003~Apr.2004 |
| Construction of Sudokwon Landfill Gas(LFG) Power Plant Project | ECO Energy | Mar.2004~Dec.2006 |
| Construction of Suncheon Food Waste Recycling Plant | City of Suncheon | Dec.2004~Dec.2005 |
| Construction of Mokpo Food Waste Recycling Plant | City of Mokpo | Dec.2004~Jan.2006 |
| Design of Extension of 2nd & 3rd Ash Pond for Samcheonpo TPP | Korea South-East Power | Mar.2006~Oct.2006 |
| Expansion Design Services for Ash Pond 1 of Hadong TPP | Korea Southern Power | Jun.2006~Sep.2009 |

### Water Pollution Control System Project

| Project | Client | Project Period |
|---|---|---|
| Yeongheung TPP Units 1~4 (Water Treatment/Wastewater Treatment/Recycled Water Systems) | Korea South-East Power | Sep.1994~Dec.2004 |
| Hanul NPP Units 5 & 6 (Water Treatment/Wastewater Treatment/Recycled Water Systems) | KHNP | Jun.1998~May 2003 |
| Eonyang Sewage Treatment Plant Engineering | City of Ulsan | Mar.2001~Oct.2004 |
| Guri Sewage Treatment Plant, 3rd Advanced Treatment | City of Guri | Nov.2001~Feb.2003 |
| Anseong Public Livestock Wastewater Treatment Plant Construction | City of Anseong | Apr.2002~Dec.2003 |
| Shin-Kori NPP Units 1~4 (Water Treatment/Wastewater Treatment/Recycled Water Systems) | KHNP | Aug.2002~Sep.2019 |

| | | |
|---|---|---|
| Construction of Sewage Treatment Plants in Gwangju, Docheok, and Namhan Sanseong | KPPS | Dec.2004~Sep.2006 |
| Construction of Wastewater Treatment Plant Suwon Industrial Complex | City of Suwon | Feb.2005~Dec.2005 |
| Construction of Daesan Sewage Treatment Plant | Jeollabuk-do Public Procurement Service | Nov.2005~Dec.2008 |
| Construction of Boryeong Advanced Sewage Treatment Plant | Environmental Management Corp. | Mar.2007~May 2009 |
| Construction of Nuclear Power Plant CPP Wastewater Treatment Plant | KHNP | Apr.2009~Jan.2013 |
| Performance Improvement of Hadong TPP Water Pollution Control System | Korea Southern Power | Jun.2016~Mar.2017 |
| Hwaseong Public Treatment Facility for Livestock Excretions | City of Hwaseong | Oct. 2009~Aug.2012 |
| BNPP Units 1 & 2 (Water Treatment/Sewage, WasteWater Treatment/Graywater Facilities) | KEPCO | Mar. 2010~Present |
| Shin-Hanul NPP Units 1,2(Water Treatment/Wastewater Treatment/Recycled Water System) | KHNP | May.2009~Present |
| Shin-Boryeong Units 1&2(Wastewater Treatment/Recycled Water System) | Korea Midland Power | Jan.2011~Present |
| Ghana Takoradi T2(Wastewater Treatment System) | Takoradi Int'l Co. | Jan.2011~Present |
| Tufanbeyli TPP Units 1~3(Wastewater Treatment System) | SK Construction | Nov.2011~Dec.2015 |
| Taean TPP Unit 9&10(Wastewater Treatment System) | Korea Western Power | May.2011~Dec.2017 |
| CIPREL IV Volet B EPC Project(Wastewater Treatment/Recycled Water System) | CIPREL POWER | Sep.2013~Mar.2018 |
| Osan Cogeneration(Wastewater Treatment/Recycled Water System) | DS POWER | Apr.2013~Mar.2016 |
| Boryeong TPP(Recycled Water System) | Korea Midland Power | Oct.2013~Dec.2016 |

### Clean Development Mechanism Business Project

| Project | Client | Registration | Emission reduction (tCO2/year) |
|---|---|---|---|
| Sudokwon Landfill Gas(LFG) CDM project | Sudokwon Landfill Site Management Corp. | Apr. 2007 | 1,210,342 |
| KHNP New Renewable Energy CDM Project (3MW Yonggwang Photovoltaic Power and 0.75MW Kori Wind Power) | KHNP | Apr. 2009 | 2,680 |
| KHNP Cheongpyeong HPP Unit 4 CDM project | KHNP | Jun. 2011 | 20,891 |

### Major Environmental Impact Assessment Projects(2000~Present)

| Project | Client | Project Period |
|---|---|---|
| Long-Term Environmental Impact Monitoring of Yeosu and Seosan Oil Storage Cavern Construction | Korea National Oil Corp. | Mar.2000~Mar.2005 |
| Environmental Impact Assessment of Urban Landfill Gas Recycling Project | ECO Energy | Aug.2001~Dec.2003 |
| Post-Environmental Impact Study of 345kV Yangyang – Donghae Power Transmission Line | KEPCO | Jan. 2005~Feb.2014 |
| Environmental and Traffic Impact Assessment of Gunsan CCPP Construction | Korea Western Power | Oct.2005~Jul.2007 |
| Long-Term Environmental Impact Monitoring of Pyeongtaek Above Ground Oil Tank Construction | Korea National Oil Corp. | Jan.2006~May 2009 |
| Long-Term Environmental Impact Monitoring of Secondary Ulasn Oil Storage Cavern Construction | Korea National Oil Corp. | Jan.2006~Dec.2012 |
| Environmental Impact Assessment of Samcheonpo TPP Units 2 & 3 Ash Pond Expansion | Korea South-East Power | Feb.2006~Aug.2007 |
| Post-Environmental Impact Study of 345kV Boryeong – Cheongyang Power Transmission Line | Boryeong TPP HQ | Mar.2006~Dec.2009 |
| Environmental/Traffic Impact Assessment of Construction for Dangjin TPP Units 9 & 10 | Korea East-West Power | Aug.2006~Aug.2009 |
| Boryeong Thermal Power Plant Course Dredging Environmental Impact Assessment | Korea Middleland Power | Jan.2008~Feb.2011 |
| Environmental Impact Assessment of 345kV Kunsan-Saemangeum T/L Construction | KEPCO | Apr.2008~Dec.2012 |
| Environmental Impact Assessment of Construction for Pocheon CCPP | Pocheon Power | Sep.2008~Aug.2011 |
| Environmental Impact Assessment of Dongducheon CCPP Construction | Korea Western Power | Oct.2009~Mar.2012 |
| Enviornmental Impact Assessment of Construction for Bukpyeong TPP | STX Electric Power | Mar.2010~Nov.2012 |
| Environmental Impact Assessment for Gangneung Anin TPP | Gangneung Eco Power Corp. | Apr.2012~Jun.2015 |

### Major Geographic Information System Projects(2000~Present)

| Project | Client | Project Period |
|---|---|---|
| Overhead Transmission Line Routing and Design for Myanmar 500kV Transmission Line Voltage Upgrading Project | KEPCO | Aug.2004~Dec.2004 |
| 345kV Seonsan-Shin Pohang Connecting Power Transmission Line Passing Area Design Services | KEPCO | Jan.2005~Dec.2009 |
| Selection of Passing Area using T/L Satellite Images for 154kV Bonghwa-Ulchin | Hawshin Powertech | Jun.2005~Jul.2009 |
| Power Impact Assessment System Development for Power Transmission and Transform Facilities | KEPCO | Feb.2006~Jul.2007 |
| The Prior Review System on Visual Impact Assessment for the Shin-Hanul NPP Units 1&2 | KHNP | Nov.2007~Dec.2008 |
| Siting Project for New Nuclear Power Plant on Preliminary Site Selection Stage | KHNP | Nov.2008~Nov.2009 |
| 154kv Hanlim Substation Power Impact Assessment | KEPCO | Jun. 2009~Feb.2011 |
| Siting for 154kV 2nd Kanghwa S/S | KEPCO | Sep.2009~Jun.2011 |
| 154kV Sangbuk-Yangjeong Power Transmission Line Power Impact Assessment | KEPCO | Nov.2009~Dec.2012 |
| Overhead Transmission Line Routing for 345kV Saemangum T/L | KEPCO | Apr.2008~Dec.2012 |
| Location Selection for 765kV Shin-Joongboo Substation and Overhead Transmission Line Routing for Relative T/L | KEPCO | Jan.2012~Present |

### Radioactive Waste Management Projects

| Project | Client | Project Period |
|---|---|---|
| The 2nd Phase Arcitect Engineering Service for low and Intermediate level Radioactive Waste DisposalFacility | Korea Radioactive Waster Agency | May.2014~Dec.2019 |
| Preliminary Feasibility Study for LWR Spent Fuel Storage Facility Site | Korea Radioactive Waster Agency | Apr.2016~Dec.2019 |
| Basic and Architect Design Service for Constructing the 2nd Receiving·Storage Building | Korea Radioactive Waster Agency | May.2017~Jun.2021 |
| Design Service for Multiplication of Drain and Power Supply System | Korea Radioactive Waster Agency | Dec.2017~Feb.2020 |
| Concept Design Feasibility Study of 3 Phase Landfill Type Disposal Facility | Korea Radioactive Waster Agency | Sep.2018~Jun.2019 |

## O&M(Operation & Maintenance)

### O&M Project(Nuclear Power)

| Project | Client | Completed |
|---|---|---|
| Engineering Support Service for EQ Follow-up Measures Environmental Improvement of Kori of Kori Unit 2 | KHNP | Aug.2008~Mar.2020 |
| Design Service for WEC type Rcp Seal Improvement | KHNP | May.2011~Oct.2020 |
| Facility Omprovement Service for Recycling Water Tank Filter of Containment Building | KHNP | Oct.2012~Apr.2020 |
| Design Servoce for Additional Installation of Water Refueling Tank of Ulchin Unit 1&2 | KHNP | Jan.2013~Jun.2019 |
| Design Service for Rod Control System Facility Improvement of Kori Unit 3&4 | KHNP | Apr.2013~Jun.2021 |
| Engineering Support Service for Steam Generator Replacement of Hanbit Units 3&4 | KHNP | Sep.2014~Aug.2019 |
| Requlatory Compliance Support Service for Replacement Steam Generator of Hanbit Units 3&4 | Doosan Heavy Industries & Construction | Nov.2014~Nov.2019 |
| Reevaluation Service for FHA Adaptability of Kori Unit 1 | KHNP | Mar.2015~Jun.2018 |
| Engineering Support Service for Steam Generator Replacement of Hanbit Units 5&6 | KHNP | Jun.2016~Aug.2021 |

| | | |
|---|---|---|
| Engineering Support Service for Requlatory Compliance of RSG of Hanbit Units 5&6(BOP Evaluation) | Doosan Heavy Industries & Construction | Oct.2016~Feb.2020 |
| Requlatory Compliance Support Service for Replacement Steam Generator of Hanbit Units 5&6 | Doosan Heavy Industries & Construction | Oct.2016~Feb.2020 |
| Detailed Design Service for Performance Improvement of CO2 Extinguishing System of NPPs in Service | KHNP | Nov.2016~Dec.2020 |
| Design Service for Procurement of Standard NPP Containment Buliding System(CFVS) | KHNP | Nov.2016~Jun.2020 |
| KICMS Installation Service | KHNP | Dec.2016~Dec.2019 |
| Engineering Support Service for Reactor Head Replacement of Hanul Units 1&2 | KHNP | Apr.2017~Oct.2020 |
| Service for Conducting Stress Test on NPPs in Service(3~6 Areas) | KHNP | Apr.2017~Apr.2021 |
| Realistic Scenario-based Severe Accident Simulation and Phenomenon Analysis | KHNP | May.2017~Sep.2019 |
| Accident Management Plan Development for NPPs in Service(Accident Management Area) | KHNP | Jun.2017~May.2021 |
| Preparation Service(Phase 1) for Seismic Qualification Documentation of Hanul Units 1&2 | KHNP | Dec.2017~Mar.2019 |

### O&M Project(Thermal)

| Project | Client | Project Period |
|---|---|---|
| Life Extension and Performance Improvement of Boryeong Thermal Power Plant Units 1&2 | Korea Midland Power | Feb.2005~Jan.2006 |
| Feasibility Study of Life Extension and Performance Improvement of Pyongtaek Unit | Korea Western Power | Mar.2007~Dec.2007 |
| Design and Engineering Service for Performance Improvement of Pyongtaek Units 1~4 | Korea Western Power | Jun.2011~Dec.2014 |
| Design and Engineering Service for Coal Stockpile Expansion and Coal Treatment Facility Performance Improvement of Boryeong Thermal Po | Korea Midland Power | Apr.2013~Jul.2017 |
| Design and Engineering Service for Performance Improvement of Boryeong Thermal Power Plant Unit 3(500MW x 1) | Korea Midland Power | Dec.2015~Dec.2019 |
| Feasibility Study of Performance Improvement of 500MW Standard Coal Fired Power Plant | Korea East-West Power | Feb.2017~Feb. 2018 |
| Feasibility Study of Performance Improvement and Pollutant Emmissions Reduction of Samcheonpo Thermal Power Plant | Korea South-East Power | Feb.2017~Mar.2018 |
| Design and Engineering Service for Performance Improvement of Boryeong Units 4&5&6 | Korea Midland Power | Oct.2018~Jun.2023 |

## OTHER BUSINESS AREAS

### Major Experience for Project Management

| Project | Client | Project Period |
|---|---|---|
| Program Management Advisory Services for Korea Train Express (KTX, Seoul-Busan) Construction Project | Korea Rail Network Authority | Feb.1993~Apr.1995 |
| Program Management Advisory Services for Incheon Int'l Airport Construction Project | IIAC | Dec.1994~Apr.2001 |
| Construction Management Services for Yongju Tabacco Plant | KT&G | Nov.1999~May 2003 |
| Program Management Support Services for Incheon Int'l Airport Railroad Project | KORAIL Airport Railroad | Dec.2002~Dec.2010 |
| Owner's Engineering & Project Management Services for Yulchon CCPP | Meiya Yulchon Generation | Jan.2003~Jun.2005 |
| Program Management Support Services for Busan-Geoje Fixed Link | DAEWOO E&C | May 2003~Dec.2004 |
| Desulfurization/DeNOx Engineering & Construction Management Services for Banwol Cogeneration Power Plant | STX Engine | Apr.2004~Jun.2007 |
| Construction Management Services for Mungyeong Leisure Town | Mungyeong Leisure Town | Jun.2004~Nov.2006 |
| Consulting on Building of Total Project Information System | Korea Rail Network Authority | Aug.2004~Dec.2004 |
| Development of Master Plan and Procedures of Design Management System (Phase 1), Establishment of Design Management System (Phase 2) | K-Water | Aug.2004~May 2005<br>Nov.2005~Jan.2007 |
| Development Services of Project Numbering System and Engineering Management System for Korea Rail Network Authority | LG CNS | Mar.2005~Dec.2005 |
| Construction Management Services for Jeju High-tech Science and Technology Complex | JDC | Jun.2005~Mar.2008 |
| Project Management Services for New Town Project in Phnom Penh, Cambodia | World City | Nov.2005~Jun.2011 |
| Lender's Technical Advisory Services for Yongin Light Rapid Transit | Yongin Rapid Transit | Dec.2005~Aug.2010 |
| Test and Commissioning Support Services for Incheon Int'l Airport Construction Project(Phase 2) | IIAC | May 2006~Dec.2007 |
| Client Technological Support Services for Dangjin Steel Gas Power Plant Units 1~4 | Hyundai Green Power | Nov.2006~Mar.2011 |
| Program Management Advisory Services for Multi-functional Administrative City Construction Project | MACC | Jun.2007~Oct.2008 |
| Establishment of Integrated Project Management System for Four Major Rivers Restoration Project (First stage) and Integrated Project Management Technological Support Services (Phase 2) | MLTM | Aug.2009~Dec.2009<br>Feb.2010~Dec.2010 |
| Client Technological Support Services for Hyundai Green Power Steel Thermal Power Plant Units 5~8 | Hyundai Green Power | Dec.2010~Sep.2014 |
| Owner's Engineering of Dong Hae Biomass TPP | Korea East-West Power | Jun.2010~Oct.2013 |
| Owner's Engineering of POS Power TPP Units 1&2 | POS POWER | Jun.2013~Oct.2021 |

### Decommissioning & Dismantling Design project

| Project | Client | Project Period |
|---|---|---|
| Design and Engineering Service for Dismantling of Incheon Thermal Power Plant Units 3&4 | Korea Middleland Power | Jun.2009~Nov.2009 |
| Design and Engineering Service for Dismantling of Incheon Thermal Power Plant Units 1&2 | Korea Middleland Power | Jun.2014~Oct.2014 |
| Design and Engineering Service for Dismantling of Ulsan Units 1~3 | Korea East-West Power | Sep.2015~Apr.2016 |
| Architect Design Service for Decommissioning of Kori Unit 1 | KHNP | Feb.2018~Jun.2030 |
| DSAR Preparation and Requlatory Compliance Support Service for Wolsong Unit 1 | KHNP | Oct.2018~Aug.2020 |

## OVERSEAS BUSINESS

### Major Experience for Project Management(Nuclear Power)

| Project | Client | Project Period |
|---|---|---|
| Preparation of Qinshan Units 1&2 AOM | AECL | Sep.1998~May 2000 |
| Feasibility Study and Training Services for Application of Germany's Siemens' Measuring Control Technology to Korean Nuclear Power Plants | Siemens | Mar.1999~May 2001 |
| Engineer Support for Lungmen NPP, Taiwan | S&W | Jul.1999~Jul.2004 |
| Engineer Support for Qinshan NPP, China | AECL | Jul.1999~Oct.2003 |
| AECL Professional Engineering Service | AECL | Sep.1999~Apr.2000 |
| Technical Support for S&L | S&L | Oct.1999~Dec.2001 |
| CANDU 9 NSSS Feasibility Analysis | AECL | Jan.2000~Jun.2000 |
| CANDU 9 Work to Conduct an Independent Safety and Design Evaluation and Joint Preliminary Engineering to Enhance Localization | AECL | Jan.2000~Feb.2001 |
| Technical Support for Bechtel | Bechtel | Jul.2000~Jul.2004 |
| Engineering Support Service for the APS PVNGS CPCS | WEC | Aug.2001~Aug.2002 |

| | | |
|---|---|---|
| Technical Consultation for the OECD/NEA IRPE Project | OECD/NEA | Dec.2002~Feb.2005 |
| Technological Advisory for China Lindgong Nuclear Power Plant | Guangdong NPP | Mar.2003~Mar.2008 |
| Engineer Support for Golder | GA | Jun.2003~Jun.2005 |
| Technical Service for Stone & Webster | S&W | Dec.2003~Dec.2010 |
| Participation in Westinghouse O&M Programs | WEC | May 2004~May 2005 |
| Design Services for the U.S. NuStart AP1000 COL | WEC | Oct.2005~Dec.2007 |
| Environmental Design for Ling Ao Phase II NPP Main Control Room | LDNPC | Jun.2006~Dec.2008 |
| Technical Support for PaR Nuclear, the USA | PaR Nuclear | Jul.2006~Jul.2013 |
| Technological Support Services for the U.S. Bechtel | Bechtel | Jun.2007~Sep.2014 |
| Technological Support Services for ACR-1000 Reactor Physics | AECL | Jun.2007~Nov.2007 |
| AP1000 COL Demonstration & Design Finalization | WEC | Mar.2008~Dec.2010 |
| ITER Electrical Installation Support | ITER | Oct.2008~Oct.2010 |
| GRR Primary Cooling System Replacement Consulting | Demokritos | Jun.2009~May 2011 |
| Preliminary Feasibility Study of Nuclear Power Program in Peninsular Malysia | TNB | Jun.2009~Jun.2010 |
| UAE Brakha Nuclear Power Plant Architect Engineering Project | KEPCO | Mar.2010~May 2023 |
| UAE Brakha Nuclear Power Plant NSSS System Design Project | KEPCO | Jun.2010~May 2023 |
| Consulting Services for Site Selection and Evaluation for New NPPs in Peninsular Malaysia | TNB Research | Jul.2010~Jan.2011 |
| ITER Cable Engineering Support Service | ITER | Apr.2012~Dec.2022 |
| ITER Detailed Design of CODAC, CIS and CSS Network Infrastructure | ITER | Oct.2012~Mar.2014 |
| ITER CIS Final Design, Procurement, Commissioning and Maintenace | ITER | Apr.2012~Apr.2017 |
| Pre-Feasibility Study for Nuclear Power Project in Vietnam | EVN | Jun.2013~Jun.2016 |
| Engineering Support Service for the APS PVNGS CPCS | WEC | Aug.2001~Aug.2002 |
| Technical Consultation for the OECD/NEA IRPE Project | OECD/NEA | Dec.2002~Feb.2005 |
| ITER Construction Management as Agent Services | ITER | Jun.2016~Dec.2027 |
| Long Term Engineering Agreenment relating to the Barakah NPP | Nawah Energy Company | Jan.2018~Jan.2031 |
| Darlington Refurbishment Retube and Feeder Replacement Project | SNC-Lavalin | Sep.2015~Aug.2021 |
| BNPP simulator NAPS Software License Agreement | WSC | Oct.2018~Apr.2020 |
| KHNP MTP Project | WEC | Dec.2018~Aug.2020 |

### Major Experience for Project Management(Fossil&Others)

| Project | Client | Project Period | Service Type |
|---|---|---|---|
| Electric Power Distribution Improvement, Myanmar | Myanmar Electric Power Enterprise(MEPE) | Jun.1996~Dec.2000 | Technical Consulting |
| Khulna Transmission & Distribution Grid Expansion, Bangladesh | Bangladesh Power Development Board (BPDB) | Jun.1996~Aug.2003 | Technical Consulting |
| Hirgigo Diesel Power Plant (22MW×4), Eritrea | Eritrea Electricity Authority (HSD Engine) | Apr.1997~Jan.2004 | Design Engineering |
| Manpower Support Services | Burns & McDonnell | May 1999~Jun.2002 | - |
| Ilijan CCPP, the Philippines | KEPCO Ilijan Corporation | Jun.1999~Jul.2002 | Technical Consulting |
| Diesel Fuel Oil Unloadin Terminal for Ilijan CCPP, the Philippines | KEPCO Ilijan Corporation | Oct.1999~Oct.2000 | EPC |
| 500kV Substation for Ilijan CCPP, the Philippines | Washington Group International | Feb.2000~Sep.2001 | EPC |
| Fujairah CCPP, the UAE | UAE Offset Group (Doosan Heavy Industries & Construction) | Sep.2001~Dec.2003 | Design Engineering (Electric) |
| 500MW Brooks TPP(1st Phase), Canada | Joint Venture (Parsons, Acres, Colt) | Oct.2001~Feb.2002 | Design Engineering |
| Sawamlah & Al-Leith Substation Protection and Control Systems, Saudi Arabia | SEC (BEMCO) | Sep.2002~Jul.2003 | Design and Supply |
| Safa Substation Protection and Control Systems, Saudi Arabia | SEC (BEMCO) | Sep.2003~Nov.2004 | Design and Supply |
| Switchyard for ARAMCO Cogeneration Power Plant, Saudi Arabia | Mitsui (Hyundai Heavy Industries) | Feb.2004~Nov.2006 | Design and Supply |
| AFAM VI CCPP, Nigeria | DAEWOO E&C | Nov.2005~Dec.2009 | Design Engineering |
| New Town Project, Phnom Penh , Cambodia | World City | Nov.2005~Jun.2011 | Construction Management |
| Manpower Support Services | Burns & McDonnell | Dec.2006~Dec.2007 | - |
| Misurata & Benghazi CCPP, Libya | DAEWOO E&C | Aug.2007~Jun.2011 | Design Engineering |
| Ultra Mega Power Plant(UMPP) MUNDRA, India | Coastal Gujarat Power | Oct.2007~Dec.2013 | Technical Consulting |
| Cirebon TPP, Indonesia | PT Cirebon Electric Power | Apr.2008~Aug.2011 | Technical Consulting |
| Shuweihat S2 CCPP, the UAE | SAMSUNG C&T | Oct.2008~Sep.2011 | Design Engineering |
| Nghi SON #2 TPP, Vietnam | KEPCO | Feb.2009~Jun.2011 | Technical Consulting |
| Power Project Engineering Consulting Services in Iraq | Korea National Oil Corp | Jul.2009~May 2013 | Technical Support |
| Design Engineering Services of Morocco's Jorf Lasfar Coal-Fired Thermal Power Plant | DAEWOO E&C | Jun.2010~Apr.2014 | Design Engineering |
| Design Engineering Services of Chile's Santa Maria Coal-Fired Thermal Power Plant | POSCO E&C | Jul.2010~Feb.2014 | Design Engineering |
| Design Engineering Services of Libya's Zwitina Add-on Plant | DAEWOO E&C | Aug. 2010~Aug. 2013 | Design Engineering |
| Design Engineering Services of UAE's S3 Combined Cycle Themal Power Plant | DAEWOO E&C | Mar. 2011~Jun. 2014 | Design Engineering |
| Engineering Services for Tufanbeyli TPP | SK E&C | Nov.2010~Feb.2015 | Design Engineering |
| Ghana Takoradi T2 Power Plant Expansion EPC Project | Takoradi Int'l Co. | Dec.2011~Dec.2014 | EPC |
| Installation of a Once-Through Sea Water Cooling System for the Takoradi T1 Power Plant EPC Project | Volta River Authority | Jan.2013~Sep.2015 | EPC |
| CIPREL IV Volet B EPC Project | CIPREL POWER | Feb.2013~Mar.2016 | EPC |

## NEW & RENEWABLE ENERGY

### Hydro Power Project

| Project | Client | Project Period |
|---|---|---|
| Review Service of the Feasibility of Automation of Hydro Power Plants on the Hangang River | KEPCO | Apr.1981~Sep.1981 |
| Design Service for the 2nd Phase Gangneung Hydro Power Plant (41MW×2) | KEPCO | Jun.1984~Jul.1991 |
| Design Service for the Marsangdi Hydro Power Plant (dam), Nepal | Lahmeyer | Oct.1986~Dec.1988 |
| Design Service for the Extension and Replacement of Equipment at Boseonggang River Hydro Power Plant | KEPCO | Dec.1987~Sep.1990 |
| Integrated Design Service for Muju Pumped Storage Power Plant Units 1 & 2 (300MW×2) | KEPCO | Apr.1989~Sep.1995 |
| Feasibility Study and Related Service for the Cheongpyeong Hydro Power Plant Unit 4 | KHNP | Oct.2005~Apr.2006 |
| Basic Planning Service for the Modernization of the Aged Hydro Power Plant | KHNP | Sep.2006~Dec.2007 |
| Feasibility Study and Basic Planning for the Modernization of the Namgang River Hydro Power Plant | K-water | Nov.2007~Jun.2008 |
| Planning Service for the Modernization of the Pumped-storage Power Plant | Korea Western Power | Feb.2009~Jan.2010 |

### Wind Energy Project

| Project | Client | Project Period |
|---|---|---|
| Design and Engineering Service for the Construction of Jeju Hankyung Wind Farm, 2nd Phase | Korea Southern Power | Sep.2004~Sep.2008 |
| Design and Engineering Service for the 1st Stage Construction of Jeju Seongsan Wind Farm | Korea Southern Power | Oct.2006~Mar.2009 |
| Preliminary Feasibility Study for Milyang Wind Power Project | Korea South-East Power | Apr.2007~May 2007 |
| Owner Support and Supervision Service for the Construction of Jeju Samdal Wind Farm | Hanshin Energy | Dec.2007~Dec.2009 |
| Design and Engineering Service for the Construction of Pyeongchang Wind Farm | Korea Southern Power | Jul. 2008 ~Mar.2013 |
| Design and Engineering Service for the Construction of Jeongseon Wind Farm | Korea East-West Power | Nov.2008~Mar.2013 |
| Feasibility Study for Quang-Binh Wind Power Project, Vietnam | KEMCO | Apr.2009~Nov.2009 |
| Basic Design Services for the Medium-sized Sea Wind Power Complex Located in the Southwestern Coastal Area of the Korean Peninsula | KEPCO Power Research Institute | Nov.2009~Aug.2010 |
| Review Service for Operation, Maintanence and Business Development of Ulsan Floating Wind Farm | Korea East-West Power | Jan.2019~Apr.2020 |

### Waste, Biomass Project

| Project | Client | Project Period |
|---|---|---|
| Feasibility Study and Basic Plans of Sudokwon Landfill Gas(LFG) Power Plant Project | KPPS | Dec.1999~Jun.2000 |
| Design of Sudokwon Landfill Gas(LFG) Power Plant Project | Hyundai Movis | Aug.2001~Oct.2002 |
| Construction of Sudokwon Landfill Gas(LFG) Power Plant Project | ECO Energy | Mar.2004~Dec.2006 |
| Design, Engineering and Supervision Service for the Construction of the Kumho TDF Cogeneration Power Plant | Kumho Petrochemical | Sep.2004~May 2009 |
| Vietnam Rice Husk Power Plant Construction Feasibility Study Project | KEPCO | Jul.2008~Jan.2009 |
| Wonju RDF Cogeneration Power Plant Design Technology Services | Korea Midland Power | Sep.2009~Jun.2015 |
| Technological Support for Donghae Wood System Biomass Power Plant Construction | Korea East-West Power | Jun.2010~Jun.2013 |
| Client Support Services for Iksan Industrial Complex 2 RDF-Fired Power Plant | Sanggong Energy | Jun.2010~Apr.2012 |
| Feasibility & Study on Biomass Mixed Fuel for Taean TPP Units 1&2 | Korea Western Power | Nov.2012~Jul.2013 |
| Project of Organic Solid Fuel Mixied Firing Facility for Dangjin TPP Units 3&4 | Korea East-West Power | Aug.2012~Jan.2015 |

### Other New Renewable Energy Project

| Project | Client | Project Period |
|---|---|---|
| Technology Development for Process Design/Pilot Plant for the Capture and Storage of CO2 | KEPCO Power Research Institute | Nov.2008~present |
| Feasibility Study on Alternatives Sources of Power for the Yeongnam TPP IGCC | Korea Southern Power | Oct.2009~present |
| Taean IGCC Power Plant | Korea Western Power | Apr.2011~Jul.2016 |
| Feasibility & Study on IGCC Project(Indonesia) | KEPCO | Oct.2012~Apr.2013 |
| Feasibility Study of Daehoho Lake Floating Solar PV Plant Construction | Korea East-West Power | Sep.2017~Mar.2019 |
| Feasibility Study of Solar Project Utilizing Unused Railroad Site | Korea Midland Power | Jan.2017~Apr.2017 |
| Design and Engineering Service for Incheon Plant Fuel Cell Project | Korea Midland Power | Jan.2018~Jun.2019 |
| Feasibility Study of Haman Moro Fuel Cell Plant Construction | BHI | Jun.2018~Jul.2018 |
| Preliminary Feasibility Study of Incheon LNG Terminal BOG Fuel Cell Project | KHNP | Dec.2018~Apr.2019 |
| Design and Engineering Service for Sejong Fuel Cell Plant | Korea Midland Power | May.2018~Sep.2019 |

### Marine Energy Project

| Project | Client | Project Period |
|---|---|---|
| Design Service for the 2nd Phase Flow System to Connect the Systems of the Wuldolmok Model Tidal Power Plant | KORDI | Apr.2006~Mar.2007 |
| Feasibility Study for the Construction of the Wuldolmok Tidal Power Plant | KORDI | Sep.2008~May 2010 |

## EPC (Engineering, Procurement and Construction)

### EPC Project

| Project | Client | Project Period |
|---|---|---|
| Yeoungdong Units 1&2 KEPAR Turnkey Project | KEPCO | Nov.1994~Dec.1998 |
| Seocheon Units 1&2 KEPAR Turnkey Project | KEPCO | Nov.1996~Dec.1998 |
| Diesel Fuel Oil Unloadin Terminal Construction for Ilijan CCPP, the Philippines | KEPCO Ilijan Corporation | Oct.1999~Oct.2000 |
| 500kV Substation for Ilijan CCPP, the Philippines | Washington Group International | Feb.2000~Jun.2001 |
| ESCO Project for Heat Exchanger's Cooler and NG Heater Installation of Bundang Combined Cycle Thermal Power Plant | Korea South-East Power | May 2001~Apr.2006 |
| Sequential Load Circuit Breaker Installation for Hwangsan Plant of Namhae Chemical | Namhae Chemical | Jun. 2001~Dec.2001 |
| Control and Protection Facility Design and Supply for Saudi Arabia's Sawamlah/ Al-Leith Substation | Arabian BEMCO | Sep.2002~Apr.2008 |
| Pyeongtaek Unit 1 KEPAR Turnkey Project | Korea Western Power | Dec.2002~Nov.2005 |
| Control Facility Design and Materials and Equipment Supply Project for Saudi Arabia's Safa Substation | Arabian BEMCO | Sep. 2003~Apr.2008 |
| Food-Leftover Sewage Cogeneration Treatment Facility Repair for Suyoung Center | Busan Metropolitan City Environmental Installations Corporation | Oct.2003~Apr.2004 |
| Switch Yard Design and Materials and Equipment Supply within Saudi Arabia's Aramco Cogeneration Power Plant | Arabian BEMCO | Feb.2004~Jan.2009 |
| Construction of Sudokwon Landfill Gas(LFG) Power Plant Project | ECO Energy | Mar.2004~Dec.2006 |
| Namjeju Units 3&4 KEPAR Turnkey Project | Korea Southern Power | May 2005~Sep.2006 |
| Boryeong Units 1&2 KEPAR Turnkey Project | Korea Midland Power | Dec.2005~Feb.2010 |
| ESCO Project for Performance Improvement of POSCO Combined Cycle Units 3~4 | POSCO Power | Sep.2006~Jun.2009 |
| ESCO Project for HRSG Waste Heat Collection of Bucheon Power Plant | GS Power | May 2007~Aug.2008 |
| ESCO Project to Install Heat Exchanger for Energy Collection of Ulsan Cogeneration 2 | Korea East-West Power | Mar.2008~Apr. 2009 |
| ESCO Project to Improve the Fuel Supply Facilities of Yeongdong Unit 1 | Korea South-East Power | Apr.2009~Nov.2009 |
| 2nd Step ESCO Project on the Chimney Heat Recovery at the Bundang CCPP | Korea South-East Power | Apr.2009~Dec.2009 |
| ESCO Project Involving the Installation of Heat Exchangers for Use in Exhaust Heat Recovery from HRSGs1~6 at the Ilsan Cogeneration Power Plant | Korea East-West Power | May 2009~Dec.2010 |
| ESCO Project for Boiler Coal Cutter Tube Expansion of Yeongdong Units 1&2 | Korea South-East Power | Sep.2010~Present |
| Emergency Restoration EPC Project for Shin-Incheon Steam Turbine Unit 9 | Korea Southern Power | Dec.2010~Mar.2011 |
| ESCO Project for Absorption Type Heat Pump Installation of Ilsan Cogeneration Power 1 | Korea East-West Power | Mar.2011~Present |
| Ghana Takoradi T2 Power Plant Expansion EPC Project | Takoradi Int'l Co. | Dec.2011~Dec.2014 |
| Osan Combined Heat Power Plnat EPC Project | DS POWER | Dec.2012~Mar.2016 |

# PROJECT LIST

| | | |
|---|---|---|
| Installation of a Once-Through Sea Water Cooling System for the Takoradi T1 Power Plant EPC Project | Volta River Authority | Jan.2013~Oct.2014 |
| CIPREL IV Volet B EPC Project | CIPREL POWER | Feb.2013~Dec.2015 |
| Posco Energy Incheon CCPP #5,6 RAC upgrade ESCO Project | POSCO ENERGY | Feb.2013~Sep.2016 |
| Construction of Top Osan Combined Heat & Power Plant | DS POWER(SPC) | Dec.2012~Mar.2016 |
| Nonsan Biomass EPC Project | Nonsan Bioenergy.Co.,Ltd | Apr.2021~Apr.2024 |
| HANJU CCPP EPC Project | Hanju.Co.,Ltd | May.2021~Feb.2024 |
| Jeju Hanlim Offshore Wind Farm EPC Project | Jeju Hanrim Offshore Wind Co.,Ltd | Oct.2021~Nov.2023 |