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Global Top 10 Power Company

SUSTAINABILITY REPORT 2012

Global Top 10 Power Company

SUSTAINABILITY REPORT 2012

KOSPO: WITH OUR COMPETITIVE EDGE,
WE AIM AT A GLOBAL ENERGY COMPANY

OVERSEAS



CONSTRUCTION



SOLAR



WIND



LNG



COAL



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ABOUT THIS REPORT

Characteristics

This is the 3rd sustainability report published by Korea Southern Power Co. Ltd. (KOSPO). It contains KOSPO's past activities as well as its commitment in opening a new chapter in the history of Korean electric power industry. This report will help KOSPO communicate with stakeholders regarding its development into a reliable and respected global company by making efforts for a sustainable future and implementing management innovations.

This report is different from the previous one in terms of format and content. It covers highlights of environmental and social performance made from 2011 to 2012, giving a thumbnail sketch of KOSPO's sustainability management. In addition, it devotes a good deal of space to feature how KOSPO is responding to climate change issues in an effort to reflect major interests of stakeholders. This report will help stakeholders understand KOSPO's sustainability through management innovations.

Period and Scope

KOSPO publishes Sustainability Report every two years. This report is based on data between a 2-year period from January 2011 to December 2012, assessing the sustainability management activities and analyzing the results of all the nationwide operations. However, for some significant data we included subsequent activities as well, and on quantitative data we utilized results from the last 4 years, starting from 2009, in order to show the change in trend.

Guidelines

Financial information in this report is in accordance with GAPP in 2009 and 2010 and K-IFRS in 2011 and 2012. Environmental and social performances are as per the related laws or KOSPO's internal standards for data measurement and calculation. This report is written in accordance with the GRI G3 guidelines and confirmed on the satisfaction of 'A+' level by GRI. Core requirements of ISO 26000 and evaluation standards of the UN Global Compact were also taken into consideration and reflected on the report.

Report Verification

This report received third party verification from The Korea Management Association Registration and Assessments (KMAR). This enhances the reliability of the content of this report and also allows the stakeholders to fully understand the sustainability management status of KOSPO more accurately. For detailed information of the verification results please refer to The Third Party Verification Statement on page 72-73.

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Global Top 10 Power Company

KOSPO, which fulfills sustainability management with unrelenting passion and continual challenge, will now pass over the domestic market and leap to become the world's representative energy company as a 'Global Top 10 Power Company'.





GLOBAL TOP 10 POWER COMPANY

KOSPO is a firm that generates electricity, which is the driving force of the industrial development, and has as the 5 core values world leader, future growth, social responsibility, creative innovation, and performance oriented, and is growing to become the representative energy company of Korea.

KOSPO puts the utmost efforts in cost control and quality control for the efficient and stable supply of electricity, and achieves the stabilization of energy supply amidst the problem of global climate change, while at the same time diversifying the business portfolios into Renewable Energy, Low-Carbon Green Growth Business, Domestic Power Generation Business, Overseas Power Generation Business, and power related fields, making its grounds as a global eco-friendly energy company. KOSPO not only seeks cooperative development with its partners and local communities through sustainability management which is the foundation for all businesses, but also listens carefully to the stakeholders and does its best to grow together.

KOSPO, which fulfills sustainability management with unrelenting passion and continual challenge, will now pass over the domestic market and leap to become the world's representative energy company as a 'Global Top 10 Power Company'.

CONTENTS



01

OVERVIEW

- C2** About This Report
- 04** CEO Message
- 06** 2011/2012 Management Sustainability Highlights
- 08** Company Profile
- 11** Stakeholder Communication
- 12** Materiality Test



14

SUSTAINABILITY MANAGEMENT SYSTEM

- 16** Sustainability Management Background
- 17** Corporate Mission & Sustainability Management Strategy
- 20** Innovation Management
- 21** Ethical Management
- 23** Risk Management



24

ECONOMY

- 26** Management Performance
- 27** Distribution of Economic Performance



28

ENVIRONMENT

- 30** Environmental Management System
- 32** Energy & Climate Change
- 38** Environmental Pollution Prevention
- 43** Eco-Friendly Construction



46

SOCIETY

- 48** Employees
- 54** Safety and Health
- 55** Community Contribution
- 56** Shared Growth
- 58** Social Contribution



62

APPENDIX

- 63** Major Management Indicators
- 65** Environmental Performance
- 69** Employment
- 70** Memberships
- 71** Awards
- 72** Third Party Assurance
- 74** GRI G3 Index
- 79** ISO 26000
- 81** History
- 82** Power Plants
- 84** GRI Statement

CEO MESSAGE



Dear Stakeholders,

I would like to extend my gratitude for your undying love, support and encouragement towards KOSPO.

As you are aware, electricity is the stepping stone of our national economy and the cornerstone of our national security. KOSPO is shining the light on Korea from an inconspicuous position. It would not have been possible for KOSPO to maintain the No. 1 position in the national power generation market without the help and support from our fellow stakeholders. Through this report, I am very pleased to disclose KOSPO's performance and social contributions in 2011 and 2012 to our fellow stakeholders.

As KOSPO aims to become a 'Global Top 10 Power Company', we will obtain sustainable growth for our organization, in accordance with the 10 universal principles of the UN Global Compact, for the advancement of our country, society, and humanity.

KOSPO will make the happy energy of Korea.

We will firmly put into practice the 'Three-Win' management philosophy in which the employees, partners and the community will grow together. We will also fulfill our social responsibility by creating a harmonious outcome in the fields of economy, environment, and society. Above all, we will stay true, without exception, to our core values and responsibility of providing a stable supply of electricity.

Second, KOSPO will establish a foothold in a sustainable growth of humanity.

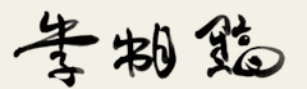
We will concentrate all of our efforts to save energy and develop new technology in order to preserve the global ecosystem and reduce the greenhouse gas. When it comes to processing all of the materials and waste from the power plants, we will comply with not just national but global standards as well. As for the world dilemma of global warming, we will use technological innovations to fundamentally solve the problem by taking initiatives such as putting into place a target to reduce carbon dioxide and commercializing technology to capture and recycle carbon dioxide.

Finally, KOSPO will establish the foundation to become a 100 year old company.

It has barely been 10 years since KOSPO became independently managed from KEPCO. Now, we will expand our horizon and look 100 years into the future, and establish the groundwork to become a '100 year old company'. To accomplish this, we will construct new power plants domestically as well as in the Middle East, South America, and any countries in need of energy. By advancing into these countries with energy shortage, we are contributing to the economic growth, as well as helping out with society. As a technologically advanced country, it is imperative we share in the concern and solve the global energy poverty.

I make a promise to all of KOSPO's supportive stakeholders!

KOSPO will achieve sustainable growth, and fulfill the fundamental social responsibilities as an eco-friendly and corporate citizen, while being transparent and establishing public trust. We ask for the continued help and support from the stakeholders so that KOSPO may realize its hopes and dreams of becoming a technologically specialized company that shares in the concern of building a happier future for humanity. Thank you.



March 2013

Korea Southern Power Co. CEO **Lee, Sang-Ho**

2011/2012 Management Sustainability Highlights

KOSPO Highlights

2011

2020, A Leap to Becoming a Global Top 10 Company



KOSPO publicly declared its grand vision to leap to become a Global Top 10 Power Company by achieving revenue of KRW 10 trillion (9.5 trillion by domestic development and 0.5 trillion by future growth business) by 2020

Perfect Score for Integrity, 1st Place in the Power Company Management Evaluation



KOSPO proudly took first place in the 2010 Power Company Management Evaluation. Especially, it received for the first time ever a perfect score for Integrity and achieved best facility reliability, etc., and received outstanding scores for reliability management of labor-management as well as for shared growth.

Commencement of the Construction for the 'Samcheok Green Power', an Export-Type Power Plant



The construction has commenced for an energy generation complex with capacity of 2,000MW in Hosan-ri, Wondeok-eup, Samcheok-si, Gangwon-do. It uses the country's first super critical pressure circulating fluidized bed boiler, and is planned to be constructed as a power plant which will be exported abroad.

Inaugural of the 5th CEO Sang-Ho Lee



In October 2011, former KOSPO Head of Technology Sang-Ho Lee took office as the 5th CEO of KOSPO. Based on his 30 years of experience in the power generation field, he declared the new slogan 'Growth of Technology & Value' and made a statement to leap again as a technologically specialized company in name and in reality.

2012

Achieved Record Revenue of KRW 6.9 trillion for a Power Company



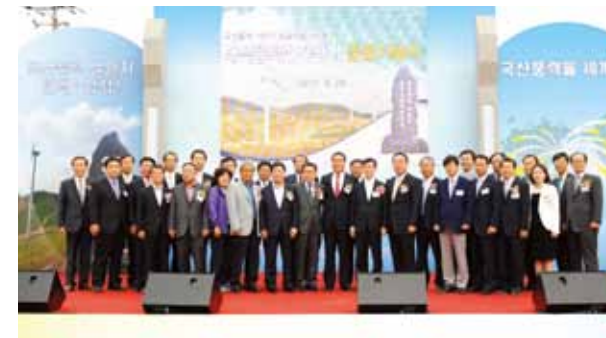
KOSPO achieved record revenue close to KRW 6.9 trillion. This is an 18% increase from 2011 amidst difficult situations such as a decrease in adjustment factors, and was only possible through the united effort of all the employees during this past year.

Selected as a Respected Company



KOSPO achieved first place in power industry category of Korea's most respected company. This is given by Korea Management Association Consulting after it conducted a survey with over 10 thousand general consumers and related industry executives, which had recognized KOSPO's management performance in management sustainability and social responsibility.

Construction of Taebaek Windpower, the First of 100 Domestic Wind Power Facilities



KOSPO held a ceremony for the completion of the Taebaek Windpower, an 18MW energy complex in Gui-ne-mi village, Taebaek city, Gangwon province. Most of the wind energy complexes, until now, were installed and operated using foreign equipment, but this was the first time that all equipment was domestically used to construct the first domestic wind energy complex. Thus, this was very significant.

First Place in Public Institution Integrity Investigation and Top Class in Anti-Corruption Competitiveness Evaluation for 2 consecutive years in a row by ACRC



KOSPO was ranked first place among 627 public institutions in the ACRC survey for Overall Integrity of public institutions. It was received top class in anti-corruption competitiveness evaluation for 2 years in a row, making a new brand of integrity for KOSPO in actuality.

Received Awards in 3 categories for the 100 Best Companies to Work For



KOSPO received 3 awards for Reliable Management Grand Prize, CEO Prize, and Team Performance Innovation Prize in the '2012 Korea's 100 Best Companies to Work For' given by GWP Korea. Company culture based on confidence between labor union and management, a people-centric management that values talent, and a socially responsible management of a public enterprise was highly regarded.

Sweeping of the National Quality Management Convention and 14 Presidential Awards



KOSPO swept in 14 categories, including 6 presidential golden awards, in the 38th National Quality Management Convention given by the Korean Standards Association, which was the best performance from all the participating public enterprises. KOSPO is leading the stable supply of electricity through quality improving activities.



Company Profile

Company Overview

Company Overview

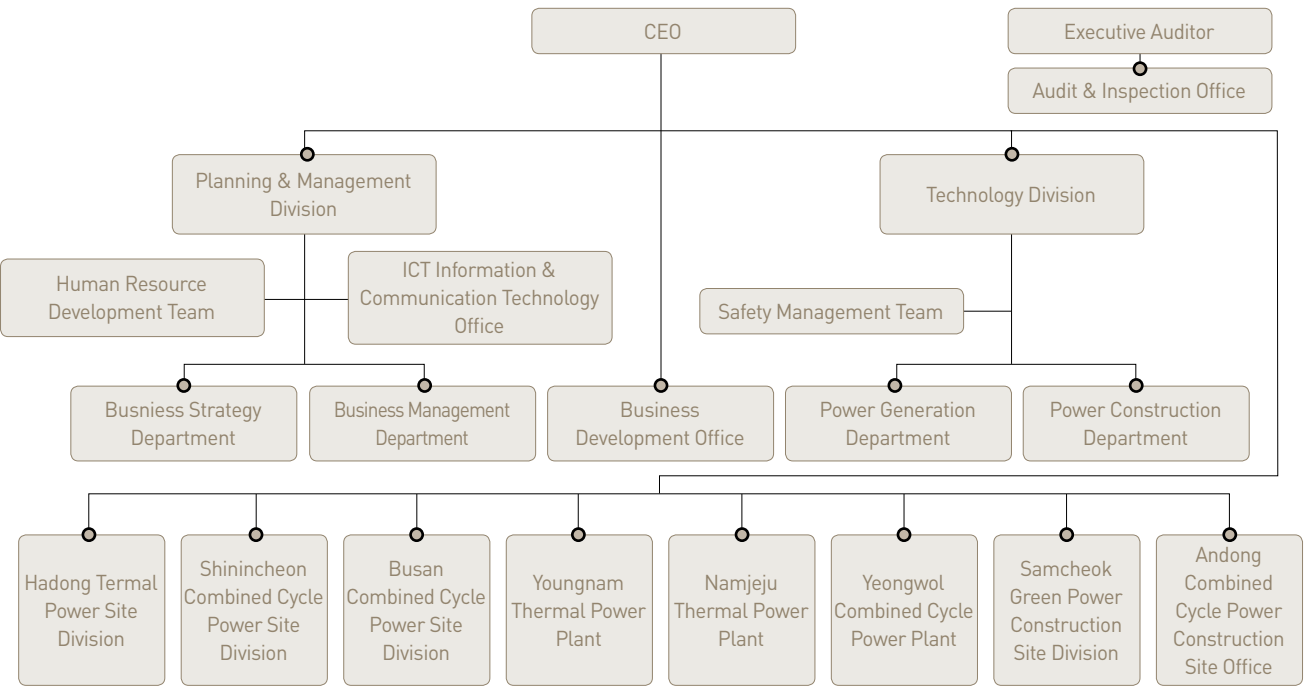
Korea Southern Power Co. LTD. (KOSPO) was established on April 2, 2001 as a spin off from KEPCO, and in accordance with the Act on Promotion of Restructuring Plans in the Electricity Industry. Though KOSPO's main business is power generation, the power resource development and association business is also operated as a wholly owned subsidiary of KEPCO. KOSPO sells electricity to KEPCO through the Korea Power Exchange (KPX). In preparation of the rapidly changing external market conditions, KOSPO is vigorously striving to achieve higher profitability and management innovations.

[As of Dec. 31, 2012]

Headquarters	KOSPO 15 FL., Mirae Asset Tower, 620 Teheran-no, Gangnam-gu, Seoul, Korea
Foundation Date	Apr. 2, 2001
Employees	1,935
Shareholder	KEPCO (100%)
Total Assets	KRW 6,441.6 billion
Total capital	KRW 3,403.1 billion
Sales Revenue	KRW 6,955.1 billion
Operating Profit	KRW 194.9 billion
Credit Rating	A1 by Moody's & AAA by Korea Ratings, Korea Investors Service, and National Information & Credit Evaluation

Organizational Structure

As of December 31, 2012, KOSPO has a total of 1,935 employees. The headquarters in Seoul consists of 4 departments (Business Strategy, Business Management, Power Generation, and Power Construction) within the 2 offices of Audit and Business Development. There are total of 8 operational locations (Hadong Thermal Power Site, Shinincheon Combined Cycle Power Site, Busan Combined Cycle Power Site, Youngnam Thermal Power Plant, Namjeju Thermal Power Plant, Yeongwol Combined Cycle Power Plant which is currently in operation, and lastly Samcheok Green Power Site and Andong Combined Cycle Power Site which are both under construction).



Governance

Board of Directors

The Board of Directors (BOD) at KOSPO operates in accordance with the "Act on the Management of Public Institutions" and the articles of association and follows strict commercial law when resolving important company matters. The BOD consists of 4 standing directors including the CEO and 5 non-standing directors. The Chairman is appointed by one of the senior non-standing directors. In particular, a non-standing director becomes a senior non-standing director by forming a Director Nomination Committee, performing an open recruitment, receiving a decision from the Public Institutions Management Committee, acceptance at the general stockholders meeting, and finally being appointed by the Ministry of Strategy Finance.

Directors

Classification	Name	Job Title
Standing Director	Sang-Ho Lee	CEO
	Sang-Hwan Jung	Standing member of Audit Committee, Director of Construction and Environmental Audit Bureau, BAI (previous)
	Jae-Hong Jung	SVP Planning and Management Division
	Ya-Sub Shim	SVP Technology Division
Non-Standing Director	Jin-Yong Jung	Chairman of the Board, Member of the Regulatory Reform Committee (previous)
	Kyung-Rok Im	Chairman of the Audit Committee, Director of the Korea News Agency Commission (present)
	Woo-Kyum Kim	Executive Vice President of KEPCO (previous)
	Kyung-Seok Chae	Non-standing director of Korea Institute of Energy Technology Evaluation and Planning (previous)
	Jong-Dae Shin	Director of the Daegu District Public Prosecutor's Office (previous)

The BOD at KOSPO is the highest decision-making body responsible for governing the organization by establishing board policies and objectives for the entire company. In order to strengthen the functions of the BOD, five specialized committees were assembled. Furthermore, an independent Audit Committee, responsible for auditing the business and accounting, was established and being operated within the board. The Audit Committee is comprised of one standing member and two non-standing members of the Audit Committee, from which the Chairman of the Audit Committee is appointed. Additionally, in order to support and help give recommendations to the BOD, an expert advisory group made up of lawyers, accountants and other knowledgeable employees



●● Integrity lecture through a Tour of Plants by the Board of Directors



●● Board of Directors



●● Site Safety Check of the Non-Standing Director



●● The 10th Board of Directors' Committee



●● Safety Check on Construction Site of the Non-Standing Director

was established to work within the office of the BOD.

Major Activities and Operation of the BOD

The BOD at KOSPO deliberates and decides on significant policy agenda ranging from business plans & targets, budget & settlement, and from the reports it receives regarding matters pointed out in the audits performed by the National Assembly, by the Financial Audit, and by the Board of Audit and Inspection, and all the corresponding action plans determined by the audits. The BOD Secretariat conducts various system and educational meetings for the purpose of reinforcing the functions of the BOD and the non-standing directors.

First of all, reinforcing the functions of the BOD agenda in prior reviews is imperative to the function of the BOD. The KOSPO BOD operates on a 3-level review system. Before introducing a business item to the BOD, it must first go through the review of the specialized committees. Then it must be field reviewed. In the power generation business, for large scale investments, it is mandatory for the company to thoroughly research a field review or have a direct visual verification on the field in order to improve the validity of the business. Lastly, it must get the approval of the non-standing directors' joint review to insure sufficient prior review before it is sent to the BOD for final affirmation.

Second important factor is getting feedback of the decisions made by the BOD. Since 2009, for business item decisions made by the BOD, a record has been kept on the progress of the business item through a "middle monitoring system". This enables the company to continually evaluate the business item's profitability and accelerates the closure of weak business items. Furthermore, the "middle monitoring system" allows the company to analyze board meeting minutes and its effectiveness and continually gives feedback about management proposals by registering them on the management proposal feedback IT system.

There are 4 areas of importance that has a high national interest in the power generation business. It is the stable supply of electricity, anti-corruption and Integrity, accident-free and safety, and development of future growth. These four areas of interest are primarily managed by BOD. They are responsible for being the one-day manager of an operation location, integrity lecture of a location, and handling a field safety inspection. This contributes heavily to the management results generated by the BOD's agenda.

BOD Evaluation & Remuneration

BOD Evaluation & Remuneration

The BOD at KOSPO operates on a BODI (Board of Directors' Index) system to continually evaluate the activities of the BOD. It calculates the attendance rate, number of management proposals, comments rates in board meetings, and other essential information as it tries to continually improve the job functions' of the BOD. As a result of these efforts, KOSPO was selected as an institution with one of the most outstanding operation of the BOD in 2012 by the Ministry of Strategy Finance. They mentioned the 'middle monitoring system' and workshops for non-standing directors as just some of the new innovative ideas they made KOSPO a leading edge industry leader in new management operations and should be recognized as a model institution for other companies to follow.

2012 Operation Status of BOD

Classification	2010	2011	2012
Number of Board Meetings	13	14	13
Number of Decided Items	36	47	40
Prior Reviewable Rate (%)	60	100	100
Number of Reported Items	14	14	23
Attendance Rate of BOD (%)	97	95	98
Attendance Rate of Non-Standing Directors (%)	96	95	100

Stakeholder Communication

Stakeholder Definition&Recognition

In the diversified modern society, sustainability management takes on more importance when environmental and social responsibilities are fulfilled as well as when economic value is improved. Through communication with diverse stakeholders, businesses can enhance their reliability and company value by listening to stakeholders' voices, understanding social expectations, and then reflecting them in their business management. The term "stakeholders" refers to those individuals or organizations that have an interest in, or are affected by the management decisions, business activities, and the results of the company. KOSPO considers the proximity of the operation location, direct/indirect responsibility of business activities of the company, mutual influence, as some of the standards for identifying stakeholders. Furthermore, employees, KEPCO (which is a stockholder and customer), investors, the government (which is in charge of the public enterprise policies), Korea Power Exchange, suppliers, local governments, NGOs, are all considered stakeholders. Through the general stockholders' meetings, regular meetings, policy seminars, meeting with an ombudsman, and the various opinions and different positions of the stakeholders are all reflected in the management strategy of KOSPO.

Communication Channels and Key Issues

Stakeholder	Communication Channel	Key Issues
Employee	CEO Meetings, CEO Letters, Management Presentations, Joint Labor-Management Council, Dealing with Employee Grievances, Company Newsletters, Welfare System, Satisfaction Surveys, Social Contribution Activities	Welfare Promotion, Self-realization, Job Security
Shareholder (KEPCO)	General Meetings of Shareholders, Board of Directors (BOD), Top Management Meetings of KEPCO Group companies	Shareholder Value Maximization
Investor	IR Activities, Electronic Disclosure System	Management Result
Government/Regulatory Body	Policy Consultative Body, Various Government Guidelines (Table of Organization, Budgets, etc.)	Public Interests, Management Innovation, Corruption Prevention, Audit, Tax
KPX	KPX BOD, General Meetings, Various Committees (Cost Evaluation, Regulation, Revision, Information Disclosure, Grid Operation Support), Policy Seminars	Smooth Electric Power Trading Supplier
Supplier	Regular Meetings, Project Review Meetings, CEO Letters, SME Policies, Satisfaction Surveys, Consultation Body	Management Transparency, Fairness
Community, NGO	Environmental Monitoring Committie, Regular Resident Meetings, Ombudsman, Community Support Project Committee, Heads of Local Organizations Meeting, Sponsorship for Social Contribution Activities, Project Briefing	Contribution to Local Economy, Environmental Preservation, Social Contribution



●● Nationwide Power-Saving PR on Street by Labor and Management Joint



●● KOSPO Green Energy Camp for 'Dreaming Tree'



●● 1 Company 1 Town Voluntary Service

Materiality Test

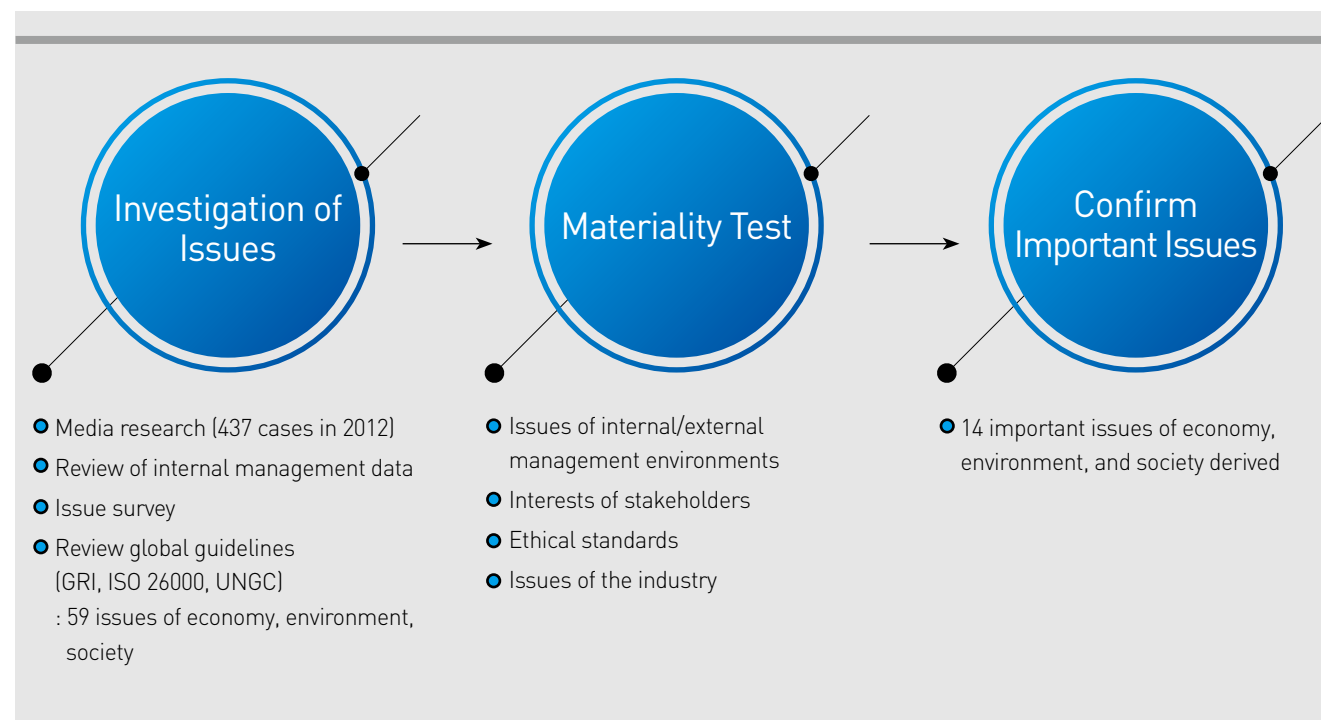
Materiality Test

What is a Materiality Test?

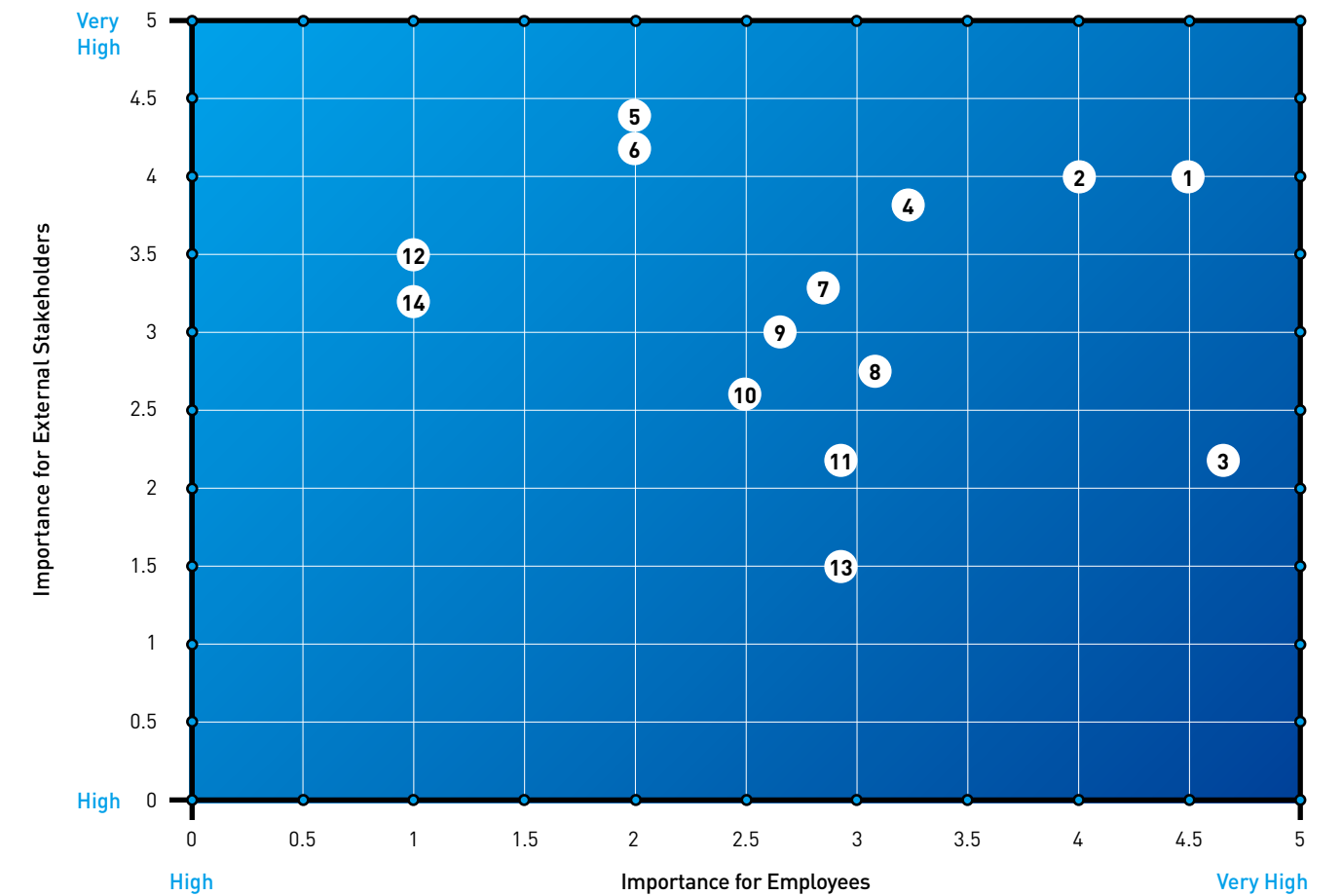
KOSPO is seeking to become a 'Global Top 10 Power Company' by providing a stable supply of electricity, attaining a technological advancement of global proportion, and having a global company culture, which will allow them to have a sustainable future growth. In order to accomplish this and as a process of responding quickly to the rapidly changing management environment and the interests and demands of the stakeholders, the sustainability report is becoming an important channel as a way of forming a smoother communication process. KOSPO's research into these important issues regarding management's goals, strategies and policies led to the creation of the Materiality Test which assesses the priority of these issues. KOSPO's 'Sustainability Management Report' focuses on the substantial issues from the Materiality Test.

Procedure and Results of the Materiality Test

The Materiality Test consists of reviewing management strategies, a survey of employees, and media research as well as the global guidelines such as GRI (G3), ISO 26000, and UN Global Compact. The issues regarding sustainability are formed a pool of 59 issues by the review. Then the identified issues were evaluated by significant issues on management activities, interests of the stakeholders and employees, ethical standards and issues of the power generation industry. As a result, after compiling all the data, 14 confirmed essential issues of the economy, environment, and society emerge.



Materiality Test Matrix



Issue	Content	Pages
1	New Growth Engine	6, 20, 26, 82, 83
2	Talent training	49, 50, 51, 52
3	Stable supply of electricity	6, 23, 26, 63, 82, 83
4	Protection of the environment	30-45, 65-68
5	Social contribution	26, 55, 58-61
6	Shared growth (fair trade)	27, 56, 57
7	Respect for human rights and labor/management relations	48-51, 53

Issue	Content	Pages
8	Renewable energy	7, 37, 43, 44, 63, 83
9	Decrease in greenhouse gas	32-36, 65
10	Transparency of governance	9, 10
11	Safety and Health	23, 54
12	Financial soundness	26, 27, 63, 64
13	Anti-corruption	7, 21, 22
14	Ethical management	7, 21, 22

SUSTAINABILITY MANAGEMENT SYSTEM



01

Sustainability Management System

16	Sustainability Management Background
17	Corporate Mission & Sustainability Management Strategy
20	Innovation Management
21	Ethical Management
23	Risk Management



KOSPO will continuously
make efforts to grow into a
business with sound and
favorable business environment
for the future sustainability.



Hwang, San Seong
_ ICT(Information & Communication Technology Office)

Sung, Jin Kyung
Business Strategy Department

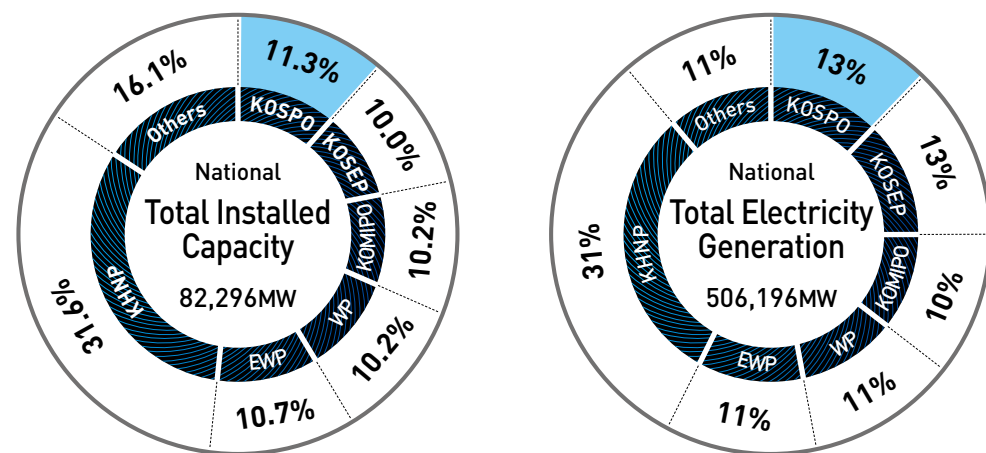
Sustainability Management Background

+ Status of Korean Electric Power Industry

Electricity is a driving force behind economic development and a source of energy indispensable to our daily lives. Electricity is neither stored nor reused. In particular it is not replaceable with other sources of energy. The power generation industry is closely related to economic growth. It is generally noted that electricity sales grows faster than the economy, while declining slower in economic recessions. There is a peak demand for electricity during the summer due to the demand for air conditioning. However, recently electricity consumption during the winter is on the sharp rise due to the demand for heating.

On April 2, 2001, six power generation companies (GENCO's), including KOSPO, separated from KEPCO, Korea's sole electricity provider. KOSPO is not only competing with the other five GENCO's, but also with the private power generation companies selling electricity in the market. KOSPO is making every effort to manage cost and quality to supply electric power in an efficient and stable manner.

KOSPO's Standing in the Power Generation Industry



+ KOSPO's Business and Sustainability Management Issues

With the growth of the economy, the demand for high quality energy, including electricity and gas, is continuously growing and the need to construct more power generation facilities is required to ensure a stable power supply to the country. As Korea is obliged to reduce greenhouse gas (GHG) emissions under the Convention on Climate Change, the Korean government is introducing Renewable Portfolio Standard (RPS), energy savings, Emissions Trading System (ETS), and carbon tax ideas to intensify competition in the low-carbon, greenpower generation business. Around the world, the inevitable future is to build a GHG reduction mechanism, reduce energy consumption and lower dependency on fossil fuel. KOSPO is working towards developing renewable energy and lowering GHG emissions.

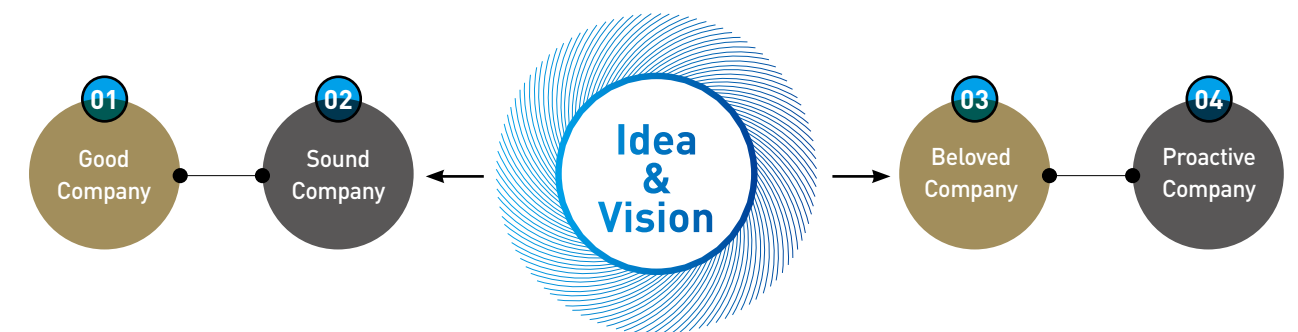
With the rapid development of emerging markets such as China and India, international commodity prices are increasing and the scarcity of resources is becoming a major issue. National competition for natural resources exacerbates the problem, which in turn, raises the price of oil and coal. With the growing demand for high quality energy, the demand for electricity will always stay strong. KOSPO produces electricity by firing bituminous coal, LNG, heavy oil, and heating oil.

Corporate Mission & Sustainability Management Strategy

KOSPO is promoting sustainable development by reflecting the CEO's management philosophy of 'Stable Supply of Electricity, Lead Technology Innovation, Create Growth Engine, Improvement of Company Culture, Fulfillment of Social Responsibility' to the founding purpose of 'Stabilization of Electrical Supply, Seeking Future Continuous Growth and Contribute to the Development of National Economy'.

+ Directions for Sustainable Growth

KOSPO takes good company, sound company, beloved company and proactive company as its philosophy for sustainable management and each of the employees puts priority on this philosophy to attain the vision of the company.



01 KOSPO will be a good company.

KOSPO's supreme purpose of existence is love for the nation's citizens. We will also respect the personal lives of our employees while making every effort to meet the expectations of the shareholders, investors and customers.

02 KOSPO will be a sound company.

KOSPO will strictly adhere to the anti-corruption laws in order to achieve sustainable growth and stability within our company. We will also have a clean environment where ideas and active energies will thrive. Through continual self-examination, we will become a healthy company that sets the standard for anti-corruption in Korea.

03 KOSPO will be a beloved company.

KOSPO will not make profit the number one priority, but instead will make customer satisfaction, technological advances and social value its top concerns. We will always take care of the local communities, our nation, the international community and the global environment. We will aspire to become a company that operates with the upmost corporate ethics.

04 KOSPO will be a proactive company.

KOSPO will raise our competitiveness within our employees to make ourselves stand out from our competitors and in order to turn a vision of tomorrow into a reality of today. Presently, all KOSPO employees strive to make changes ahead of our competitors. We will not allow complacency to dull our appetite for innovation. Our management capabilities will be ahead of the curve in the global power generation industry. We will develop into a global company, armed with local network systems, so we can take the lead increasing the market standards in the global economy.

Core Values

The core values of the KOSPO-way are our commitment to becoming a global leader in the power generation industry. Being a global leader, having sustainable growth, bearing social responsibility, possessing creativity and innovation, and continuing to be performance oriented are the core values of the KOSPO-way. It serves as a foundation for achieving the corporate vision and strategic goals, and establishing the corporate culture. It also serves as the set of principles upon which all employees base their thinking and behavior.



Global Leader: Lay the foundations for developing into a global energy company, and motivate employees and management to innovate new ideas and aggressively seek to increase the overseas market.

Sustainability: Transform into a business structure that allows for sustainable growth and internalizes the spirit of challenge without being complacent with what has been achieved in the local markets.

Social Responsibility: Play a leading role in boosting the national economy through job creation and increasing the national income while being ethical in its business dealings.

Creativity & Innovation: Be a world-class leader in the development of the power generation and green growth technologies through creative ideas and technological innovations conceived by employees based on the foundations of the core values of the KOSPO-way.

Performance Oriented: Establish a dynamic corporate culture on level with an entire society. Raise the awareness of the local community while giving the opportunity for growth and prosperity for both the community and KOSPO.



Sustainability Management Vision & Strategy

KOSPO will manifest a new vision of becoming a “Global Top 10 Power Company” in 2012. As we reached the limit of strategic mechanism for the current vision, a “Clean Company Leading the Global Energy Market,” now we must look to the future and come up with new and innovative ideas that will lead us into the bright future. The new strategic goals will be quantitative and target-oriented, and not value-oriented as in the past. In order to achieve these strategic goals, we will keep expanding the management infrastructure, and thereby living up to the expectations of all the stakeholders.

KPIs for Sustainable Growth



Economic Indicator

Performance Indicator	Unit	2009	2010	2011	2012
Total Sales	KRW 100 million	45,567	51,692	59,107	69,551
Power Generation	GWh	52,525	57,693	58,085	61,079
Bituminous Coal Self-Sufficiency	%	5.2	5	27	42
Labor Productivity	KRW 100 million/Person	5.40	5.31	3.03	5.14
Int'l Credit Rating	Moody's	A2	A1	A1	A1



Environmental Indicator

Performance Indicator	Unit	2009	2010	2011	2012
CO ₂ Emissions	g/kWh	0.694	0.651	0.650	0.649
Environmental Facility Operating cost	KRW billion	548	576	533	572
Coal Ash Reuse	%	51	51	80	87
De-Sulfurized Gypsum Reuse	%	99	100	100	100



Social Indicator

Performance Indicator	Unit	2009	2010	2011	2012
Integrity Index	Points	9.81	9.56	8.81	9.28
ACRC Anti-Corruption Competitiveness Evaluation	Rating	-	-	1	1
Safety Culture Index	Points	4.6	4.6	5.3	6.3
Community Service Hour	h/Person	11.3	10.5	16	16.6

Economic Performance: In 2012, KOSPO became Korea’s first thermal power generation company to approach the annual sales of KRW 7 trillion, and ranked 1st in terms of forced outage rate.

Environmental Performance: In 2012, KOSPO received the Green Climate Award from the Minister of Finance and Economy, and the Environment Energy Grand Prize from the Minister of Environment.

Social Performance: KOSPO had the honor of being ranked 1st place from 627 institutions in the 2012 Integrity Survey by ACRC.

Innovative Management

Activities of KOSPO Quality Control Circle

KOSPO is actively deploying innovation activities in an effort to improve management efficiency and rationalize management. Especially, the power generation industry is a mechanism industry that operated large-scale plants, and the quality activities in the field are of utmost importance for the stable supply of economic and high-quality electricity. KOSPO is accelerating the field management innovation activities with a problem solving mind of "our problem's answer lies in the field".

The core of field innovation activities is the quality circle activities. Each location of operation sets its task and objective, and circles comprised of professionals are configured for the activities. Each professional gives ideas in a bottom-up form regarding a problem found on the field, and by solving problems on field the quality is improved while at the same time the problem solving skills of the circle members are cultivated.

KOSPO is solving problems in the field through the 110 circles company-wide in 2012. Through these efforts KOSPO achieved great results in the quality circle activities. Especially, it received 6 presidential golden awards, 5 silver awards, and 3 bronze awards in the 38th National Quality Management Convention's Excellent Quality Circle category given by the Korean Standards Association, which was the best performance from all the participating public enterprises.

Also on October 15th in the 2012 International Convention on Quality Control Circles held in Kuala Lumpur, Malaysia, KOSPO had the great honor of winning the highest level prize '3-Star Award' for the first time for any Korean organization. Members of the KOSPO Quality Control Circle are once again accelerating the preparation to make a new landmark in the area of quality.



● Best CEO Award from Korea Media Management



● Presidential Award in 2012 National Quality Management Competition



● First Time in the Country to Receive '3-Star Award' in the 2012 International Quality Circle Convention

Ethical Management

Ethical Management

KOSPO has systematically implemented many procedures in dealing with ethical issues to achieve the corporate vision of becoming a 'Global Top 10 Power Company'. Our competitiveness in the power generation industry is due in large to the ethical management of our business dealings. We will continue to remain committed to anti-corruption, integrity of our corporate culture, shared growth with the SMEs, and contract transparency in becoming a more respected and ethical company.

Ethical Management System

KOSPO aims to be the representative company in Korea in the field of ethical management. For this purpose it has installed systematic programs such as Code of Ethics, Compliance Check-up, and Consensus & Education. Especially through the strong code of ethics such as the ethics charter which is the standard for all employees and the employees' code of conduct, KOSPO is leading the autonomous integrity company culture. KOSPO is also pursuing the shared growth with its partners by conducting integrity and ethics education together with the partners. KOSPO is operating an Ethical Management Department such as an Ethical Management Committee and Audit Agency as deliberation agencies, and conducting feedback through integrity assessment and ethics consciousness assessments, etc.

Company Vision for 2020	Global Top 10 Power Company
Ethical Management Vision	KOSPO, leading company for Korea's integrity
Objective for 2013	- Continuously 1st place in national public institution integrity - Continuously top class in Anti-corruption/competitiveness
4 Main Strategic Tasks	- Strengthen effort for controlling corruption - Sophistication of ethics system - Expansion of integrity ethics culture - Diligently fulfill social responsibility
Internal Infra	- Ethical Management Committee - Hands-on professional pursuing anti-corruption - Law watchdog including external people - Integrity leading T/F
External Communication Channel	- Enhancement of Internal/External VOC system - Jointly conduct ethics education - Idea contest for corruption prevention - Internal, External (Partners)
Feedback	- ACRC integrity evaluation, anti-corruption competitiveness evaluation, government management evaluation - Assessment of ethical level (yearly), self-investigation of integrity (twice a year) - Operate ethics measure T/F at all times (constant)

Goals of KOSPO Ethical Management by Stages

- 2012**
 - The Achievement of the Highest Level in Integrity from ACRC (Anti-Corruption & Civil Rights Commission of Korea)
 - 1st grade for 2years from ACRC Competitive Assessment
- 2015**
 - Accomplishment of Global Standard's Ethical Management
 - A Ethically Representative and Trustworthy Public Enterprise
- 2020**
 - A Representative of Ethical Management Public Enterprise
 - Globally Sustainable Public Enterprise Embodiment



● Signing of Anti-Corruption, Integrity Pledge by Management



● Korea's Integrity Leading Company KOSPO's Integrity Lecture



● Confucian Training Center's Education



●● Selected as Best Institution for Corruption Prevention (Group Award for e-People)

TRANSPARENCY IN CONTRACTING

- | Law Compliance |**
KOSPO observes fair trade-related laws, and thus has no fines or sanctions due to related laws.
- | Fair Trading Practices |**
KOSPO is making electronic bidding mandatory to ensure transparency and promote fair competition. In addition, we sign an integrity agreement with the other party of contract and have set-up construction work integrity executive system, etc.
- | Improved Procurement Process |**
KOSPO is working on a One-Stop Service by setting up a Customer Support Center in our website through which suppliers submit contract-related documents and certificate electronically without any visit.
- | Institutional Improvement for Supplier Convenience |**
KOSPO is improving its contract system to be more customer-centered such as improving the lowest bidding system and expanding bidding information to be disclosed, and has deployed the inspection scheduling system to reduce the waiting time.

Management Information Disclosure Channel		
Item	Disclosure Site	Specific Items Disclosed
Management Disclosure	KOSPO website (www.kospo.co.kr)	General information, financial information, investments, audit, etc.
Integrated Disclosure	Public information disclosure system (www.alio.go.kr)	33 items including general information, organizational information, and financial performance
Corporate Disclosure	Electronic disclosure system (dart.fss.or.kr)	Business operation report, audit report, major changes in management, etc.
Customized Disclosure	KOSPO website (www.kospo.co.kr)	Items individually requested

Monitoring and Feedback

The Ombudsman system is in operation to disclose corporate information and conduct monitoring. We also rely on self-assessment questionnaire and outside specialized institutions to receive feedback. In an effort to strengthen self-monitoring, we increased the number of internal integrity surveys from once to twice a year as well as hold anti-corruption & integrity meetings led by management quarterly. We are also intent on establishing anti-corruption and integrity culture. Change management training is continuously provided for employees to raise the awareness of integrity and enhance capacity for action. In addition, supplier survey and regular meetings are conducted to grasp the status of anti-corruption and integrity, and identify and resolve any grievances.

⊕ Ethical Management Practices

Ethics Standards, Education, and Awareness

Under the Code of Conduct, KOSPO sets standards and detailed operating rules for stakeholders including employees and customers, competitors and suppliers, and the government and society. In 2009, we enacted the Regulations on International Contracting to guarantee transparent and corruption-free international contracting process. We revised the 'Standards of Ethical Behavior' and the 'Employee Code of Conduction' to reflect the Public Service Ethics Act and raise the awareness of employees. Lectures on corruption prevention were given by experts from in and outside of the company. Other efforts include campaign for integrity leadership, invitation of anti-corruption ideas, employees' integrity pact at New Year or personnel shifts, and CEO's letters.

Prevention of Corruption

KOSPO intensively promotes anti-corruption policies in order to fundamentally eradicate corruption by providing an anti-corruption education to all employees at a Confucian training center where they learn firsthand the ancestors' attitudes toward integrity. We also hold anti-corruption events for supplier scalled, 'family day', impose strict disciplinary action for those involved in corruption with the one strike and you're out system, heavily consider integrity when promoting, enacted the joint responsibility system where the plants and those involved are held accountable, created an internal reporting system where employees can feel safe reporting improprieties, and introduced an anti-corruption mileage policy. We also increased the reward for whistle-blowers to KRW 2 billion and made available a system where stakeholders can voice their complaints. We also perform a biannual customer satisfaction survey, and operate an integrity appointment policy so no corruption cracks through the roof. As a result, in 2012, KOSPO was ranked first among 627 public organizations in the ACRC survey for anti-corruption as well as first in public enterprises in the ACRC anti-corruption competitiveness assessment in 2011 and 2012.

Transparency in Contracting

KOSPO introduced the electronic bidding system and obliged bidding participants to sign an integrity agreement to eradicate the possibility of corruption. When opening a tender, we provide bidding information on time to participants via the web site or short message service. We also operate the electronic certification system and "Happy-Call" to increase transparency and convenience.

Management Information Disclosure

KOSPO is committed to stakeholders' right to know and continues to improve the transparency of business. To this end, we make public key information, taking into account customer needs. We also make efforts to improve the quality of management information disclosure by ensuring there are no omissions or no errors.

Risk Management



●● Safety Check on the Construction HQ of the 'Samcheok Green Power'



●● Operating Safety Inspection Day



●● Fire Prevention Drill



⊕ Risk Management System

At KOSPO, the CEO is the final decision maker for risk management. Major risk-related policies are deliberated and decided in the BOD. The Risk Management Committee consisting of top management and heads of departments (offices) reports the outcome of their activities to the BOD and matters of importance are decided on in the BOD.

Financial Risks

The Guidelines for Managing Foreign Exchange Risk have been prepared to minimize losses from exchange rate fluctuations in case of foreign exchange transactions concerning procurement of fuels and materials, overseas businesses, and foreign currency borrowings. Under the guidelines, KOSPO has formed the Foreign Exchange Management Committee in which currency forecasts are made and measures against foreign exchange risks are devised.

Fuel Risks

Our annual spending on fuels amounted to KRW 5.826 trillion in 2012, accounting for 87% of total budget. This indicates that fuels have tremendous impact on business operation. We rely on overseas markets 100% for fuels, which makes us vulnerable to changes in overseas procurement environment. Against this backdrop, we are seeking strategies to minimize risks, especially for coal that we directly procure from overseas. The strategies include creating a portfolio of import sources, diversifying exporting countries/suppliers, raising the ratio of long-term contracts to 80% or higher, increasing the self-sufficiency ratio up to 70% by exploring overseas mines by 2020, all of which is to supply coal in a stable and economic manner. When it comes to large-scale overseas resource exploration projects, we are in a strategic alliance with other KEPCO group companies in order to reduce risks.

Facility Operation Risks

KOSPO has a comprehensive power generation facility management system in operation to prevent unplanned shutdowns that undermine a stable supply of electric power and incur operating losses. The management system enables KOSPO to prevent failures proactively and raise equipment reliability. Moreover, we operate the IT-based high-tech predictive diagnosis system which is aimed at vulnerable or failure-prone equipment.

Safety & Disaster Risks

Emergency operating procedures have been prepared for each scenario in order to minimize damage resulting from disasters and accidents of variety. We carry out scenario-based drills to ensure speedy and systematic response in case of emergency. In an attempt to prevent large-scale disasters, power generation equipment and facilities are put under special management, and safety inspections and precise diagnosis are conducted on a regular basis in accordance with laws and regulations. In addition, an advanced safety management system is established to prevent safety accidents which cause casualties. Under the system, safety managers manage and supervise the entire work process ranging from preparation to competition such as conducting pre-job risk assessment, reviewing operating procedures, issuing safety cautions and approving component manipulation. Especially for high temperature and/or, high voltage electricity accidents which possibly cause bodily or equipment damage, we are operating a Key Lock system to manage safety in real-time.

No. of Accident-Free Days	Operation Office	Hadong	Shinincheon	Busan	Youngnam	Namjeju	Youngweol
	Launch Date	Jan. 1, 2010	Dec. 3, 1999	May 30, 2009	Oct. 29, 1996	Jun. 22, 1981	Apr. 26, 2010
	Perfor-mance	Times	3	14	10	14	24
		Date	Jun. 15, 2012	Feb. 17, 2013	Nov. 23, 2012	Oct. 31, 2012	Feb. 24, 2013
	Goal	Times	4	15	11	15	25
		Date	Jun. 15, 2013	Jan. 2, 2014	Dec. 2, 2013	May 21, 2014	Mar. 30, 2015

※ Accident-free: There is no case of death of employees or injuries or diseases that require more than 4 days recuperation.

ECONOMY

02

Economic Performance

26	Management Performance
27	Distribution of Economic Performance



Song, Young Jin
_ Business Strategy Department

Kim, Hyun Chul
_ Construction Department

KOSPO will become a
global leading power company
by generating new concepts of
energy with continuous
creativity and growth.



Management Performance

In order to become a Global Top 10 Power Company by 2020, KOSPO enhanced its competitiveness by having the largest market share, entering the overseas markets, started allow-carbon green growth, and diversified the business areas. Electricity generated by KOSPO is traded in the KPX market and is in competition with 5 private power generation companies. KOSPO is trying its best to lower cost and increase quality and thus provide a stably stream of electricity which is the driving force behind the industrial development. In addition, it implemented an ERP system for management transparency and efficiency and established an IFRS system for accounting transparency.

From Jan. 1~Dec. 31 of 2012, KOSPO's market share was 11.3% for power generation capacity and 13% for electricity.

Major Performance in 4 Business Areas in 2011 and 2012



Generation Facility Operation Business

- **Complex facility usage ratio:**
67.85% (highest among power generation companies)
- **Unplanned loss ratio:**
0.34%, (lowest among power generation companies)
- **Power generation cost by bituminous coal:**
KRW 49.24/ kWh (lowest in domestic)
- **Triple zero achievement:**
No Accident, No Injury, No Human Errors



Generation Fuel Supply

- **Days of bituminous coal inventory:**
17 days or more
- **Unit cost of bituminous coal:**
74.6% of the cost in Japan (as of 2012)
- **Independent development ratio of bituminous coal:**
42% (highest among generation companies)
- **Fare of long-term transportation:**
USD 8.44/ tons (lowest among power generation companies)



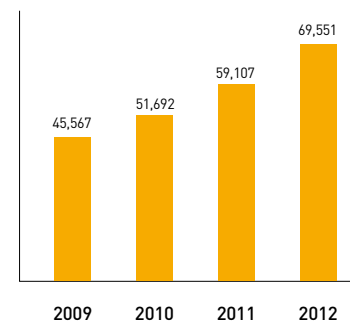
Future Growth Business



Construction Business

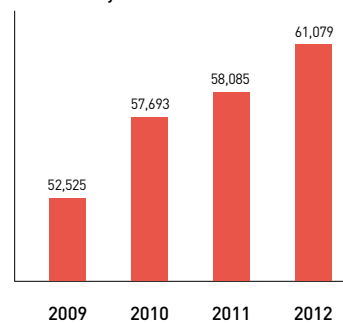
- **Reduction in construction cost:**
KRW 202.1 billion (Samcheok Green Power)
- **Shorten of Combined cycle plant construction:**
4 months (Construction within 24 months)
- **Patent:**
102 patents applications, 16 patents registration
- **Job creation in local community:**
trained 73 Samcheok residents to technicians

■ Sales Revenue (KRW 100 million)

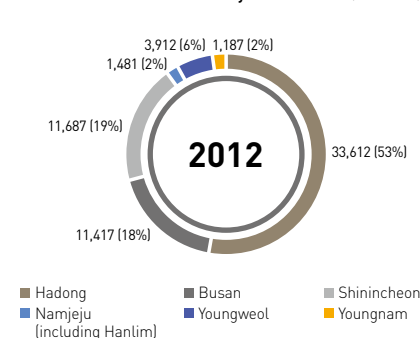


※ Based on IFRS in 2011 and 2012, Korean GAAP in 2009 and 2010.

■ Electricity Sales (Unit: GWh)



2012 Power Generation by Power Plant (Unit: GWh)

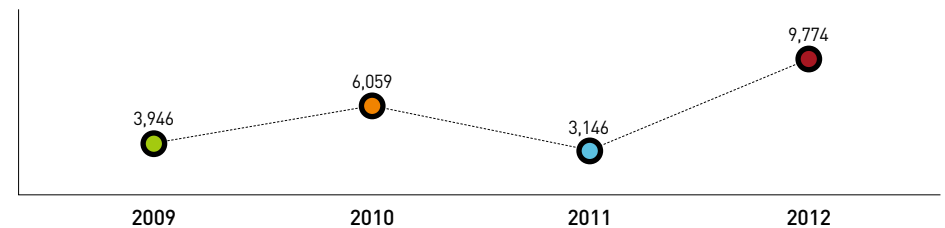


※ Parenthesis is power generation ratio

Distribution of Economic Performance

Suppliers | Purchase amount

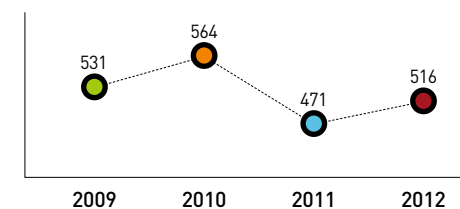
In 2012, total transaction with suppliers including purchase of material and goods, construction and outsourcing was KRW 977.4 billion. (Unit: KRW 100 million)



Shareholders | Dividend

(Unit: KRW 100 million)

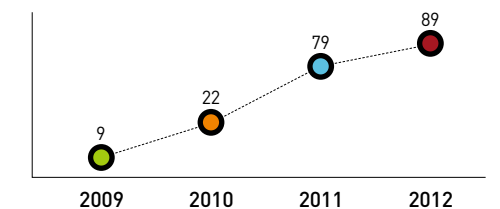
KOSPO paid KRW 51.6 billion of dividend to the shareholders.



Local Communities | Donation (accumulated)

(Unit: KRW 100 million)

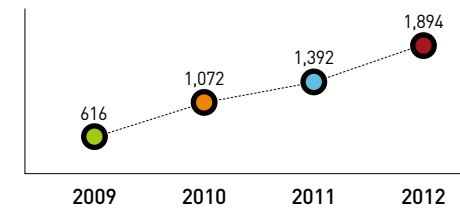
In 2012, KOSPO donated a total of KRW 1 billion to the Local Communities.
[※ Excluding employee donation / Including KRW 5 billion of Cooperative Fund in 2011]



Government | Tax (accumulated)

(Unit: KRW 100 million)

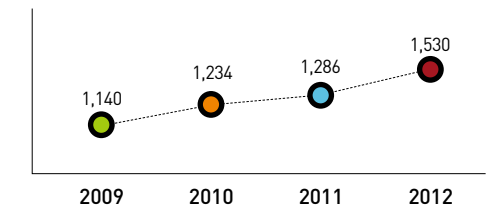
In 2012, KOSPO paid KRW 50.2 billion in taxes which is a transparent disclosure of the economic outcome. [※ Increased corporate tax payment due to net income growth]



Employee | Salary

(Unit: KRW 100 million)

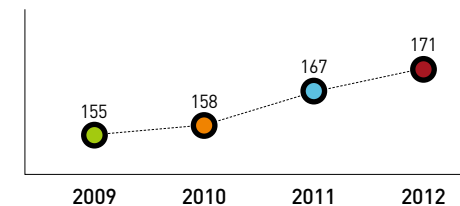
KOSPO fairly compensates based on performance. In 2012, total KRW 153 billion in salary was paid to the employees.



Employee | Welfare Benefit

(Unit: KRW 100 million)

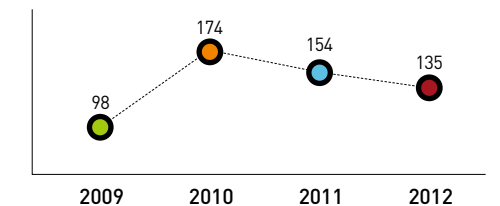
In 2012, KOSPO spent KRW 17.1 billion on welfare benefits to employees to improve the quality of life and work.



Employee | Retirement Benefit

(Unit: KRW 100 million)

In 2012, KOSPO reserved KRW 13.5 billion for allowance for retirement.



ENVIRONMENT

03

Environment

30	Environmental Management System
32	Energy & Climate Change
38	Environmental Pollution Prevention
43	Eco-Friendly Construction

As an eco-friendly and clean company, KOSPO will take the lead in global environment preservation with new energy concept and thus help to make our tomorrow richer and greener.



Park, Jong Chan
_ New Business Development Department

Kim, So Hyeon
_ Audit & Inspection Office

Environmental Management System

Environmental Management System

KOSPO aspires to become a reliable company that expands the foundation of sustainable growth and increases the level of global involvement all the while contributing to the local communities while preserving the surrounding environment. To this end, we defined environmental vision as achieving an 'Envi-Clean Company' that leads to sustainable growth. Under the sustainable growth model, we have continuously tried to improve and strengthen our initiatives to realize the environmental vision while focusing on 4 strategic directives.



Adopt and Spread Sustainable Management

Strategy

Minimize Environmental Pollutant Emissions

- Install latest environmental facilities
- Enhance existing facilities at the right time

Strengthen Response to Climate Change Convention

- Expand clean energy facilities
- Develop renewable energy projects

Pursue Recycling

- Adopt policies to encourage or improve recycling
- Diversify the usage of recyclables

Bolster Partnership with Stakeholders

- Handle environmental complaints reasonably
- Step up PRs on environmental information

Key Imperatives

Lay a Foundation for Environmental Vision

Secure Core Engine for Sustainable Management

Adopt new environmental technologies
Nurture core talent for environmental management

Maximize Corporate Value with Technological Breakthrough

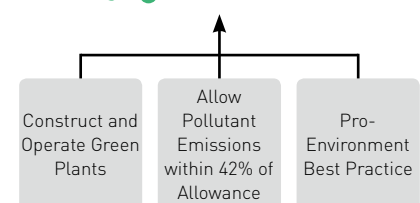
Develop new technologies for environmental technologies
Focus on development of renewable energy

Strengthen Environmental Management System

Establish and reinforce environmental monitoring system
Continuously monitor environmental impact

Eco-Action to Minimize Environmental Pollutant Emissions to the World's Lowest Level

Environmental pollutant emissions to the world's lowest level



In August 2010, KOSPO established, under the mid-long term basic plan for environmental vision, targets to reduce SOx emissions from each operation locations by 5%-10% against 2012 by 2014. At the same time, KOSPO plans to reduce greenhouse gas emissions by 10%-15% against BAU by 2020. This plan also includes a step-by-step objective to recycle resources and develop renewable energy.

Environmental Policy

Recognizing that the environment is the source of life and the foundation of daily lives, KOSPO is committed to generating eco-friendly electric power. In order to establish an eco-friendly culture, we initiated the environmental policy in August 2010, which follows as:

KOSPO Environmental Policy

01

The fundamental objective of environmental policy is to realize "Sustainable Development" for both environmental preservation and economic growth. We regularly conduct environmental impact assessments on all the process of our business activities and continue to make improvements.

02

We clarify roles and responsibilities of each organization to prevent environmental contamination, encouraging all employees to serve as guards for the environment through environmental awareness training.

03

Considering characteristics by power generation facility, we set targets stricter than the requirements defined in laws and regulations as well as agreements with local governments in an endeavor to minimize pollutant emissions.

04

We improve transparency and reliability by building an open environmental management system and disclosing environmental information.

05

We take the lead in building a resource-recyclable society by considering the recyclable factor of waste from the generation stage and maximizing the recycling or reuse of waste.

Environmental Management Certification



2012 Korea Green Management Award



2012 Grand Award for Environmental Energy

KOSPO has implemented ISO 14001 certification to ensure the optimal operation of the environmental facilities and their upgrade in a continuous and systematic manner throughout the entire management process. For the first time in Korea, KOSPO acquired the green management certification for electricity from the Ministry of Knowledge in Economy in December 2012 at eight operational locations, which includes two construction sites in Andong and Samcheok, and six other locations at Hadong, Shinincheon, Busan, Yeongwol, Youngnam and Namjeju. Introduced in 2011, the green management certification is given by the government to a company, which exemplifies cost savings and efficient use of resources and energy and thereby minimizing GHG and pollutant emissions. KOSPO's environmental management efforts were acknowledged with three awards, the 'Outstanding Award' by the Minister of Knowledge of Economy at the 2012 Korea Green Climate Award Ceremony in February 2012, the Minister of Knowledge Economy Award at the Korea Green Management Award ceremony in October 2012, and the Minister of Environment Award at the Environment Energy Award ceremony in November 2012, with many more awards to come in the near future.

Environmental Accounting

We made a steady investment in installing eco-friendly facilities. Approximately KRW 56 billion in 2010 and KRW 40 billion in 2011 were invested to install and run eco-friendly facilities. For instance, we improved de-NOx facilities of Hadong Thermal Power Units 1-8 and repaired yellow plume reduction facilities of Busan Combined Cycle Power Site. In the days to come, we will continue to make environmental investments.

Environmental Account

Environmental Facility Installation

Costs related to installation/maintenance, environmental improvements, etc.

Environmental Facility Operation

Electricity, water, ash treatment, chemicals, labor, emission charge, waste treatment, maintenance of environmental measuring instruments, etc.

Environmental Technology Development

R&D, Study, Training, etc.

Energy & Climate Change

Government Policy on Climate Change

In 2010, the government began discussing ways to lower carbon in the environment and put green growth on the highest of national policy agendas with the goal of reducing GHG emissions by 30% from BAU by 2020. Since 2012, the government has implemented the GHG Energy Target Management System and Renewable Portfolio Standard (RPS). The government also established laws and enforcement decrees to abate GHG emissions by 2015. Under the industry-specific GHG reduction goal, the government's policy target is to reduce GHG emissions by 26.7%. Government policy also includes low-carbon energy supply and renewable energy development. KOSPO actively promotes the expansion of cost-efficient renewable energy driven by home-developed wind power generators, growth of low-carbon clean energy, such as natural gas, development of CCR (Carbon Capture & Reuse) and CO₂ reuse technologies to prevent GHG emissions from the source, so as to proactively support the government's GHG reduction policy and secure a leading role in the global initiative in coping with the climate change.

Government Policy

GHG Inventory Management / Carbon Credit Trading

Goal: Nurture climate-friendly business, enhance quality of life and the environment, lead internal community's efforts
Objective: 30% reduction from BAU emissions (2020)

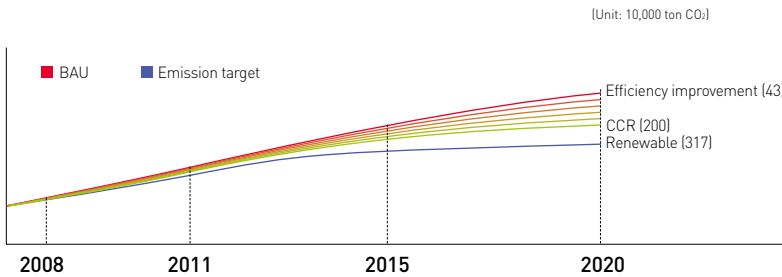
GHG Reduction Goal Responding to Climate Change

Item	2012	2015	2018	2020
Renewable Energy (10,000 ton)	20	190	300	317
CO ₂ Capture(10,000 ton)	0	7	200	200
FunctionImprovement(10,000 ton)	15	20	40	43
Goal (including ETC.)	55	217	540	560

Road Map for the Convention on Climate Change

In 2008, KOSPO formulated the "Mid- to Long-Term Road Map to Respond to the Convention on Climate Change" to become a model company for low carbon green management. Under the motto of the "Clean & Green KOSPO 2020" we set CO₂ reduction target of 5,900,000 tons by 2020. With this, in mind, we are implementing 14 action plans across the company.

2020 CO₂ Reduction Portfolio



Energy Consumption & GHG Emissions

Thermal power plants generate electricity by burning fossil fuel, which drives the electrical generator. GHG is emitted during the fossil fuel combustion process. A growing electricity demand increases the electricity output, and thus leads to more consumption of fossil fuel and subsequently more GHG emissions. KOSPO has maintained the lowest GHG emissions per unit (tCO₂/MWh), amongst the five generators, thanks to the clean energy high-efficiency facilities, while taking up 11.3% of the nation's electric capacity. In 2012, KOSPO provided the highest amount of renewable energy and therefore outperformed others in achieving the RPS quota.



GLOBAL CARBON TRUST STANDARD

KOSPO acquired the Global Carbon Trust Standard certification for its effort and achievement in establishing low GHG emissions and monitoring system and saved energy cost. For three consecutive years from 2009, KOSPO has successfully reduced GHG emissions by 7.6% of cumulative sales.



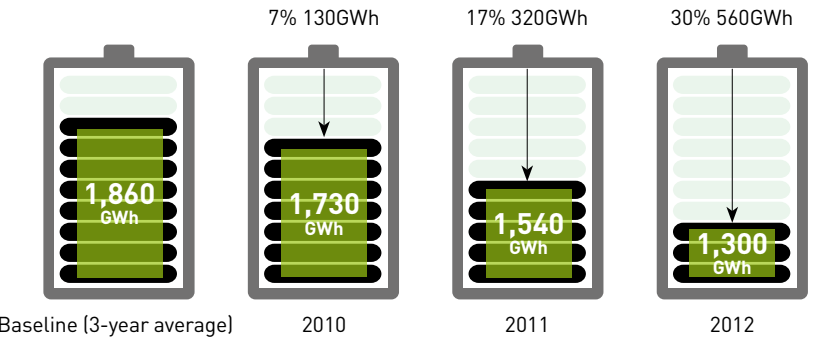
CARBON TRUST STANDARD Certificate

Energy Efficiency Enhancement

The main factors for low-carbon power generation are high-efficiency facilities which use clean fuel usage, extensive development of renewable energy, and performance enhancement with energy saving. KOSPO operates several world class high-efficiency power plants and maintains a 48% clean and high-efficiency natural gas-fired power generation. Meanwhile, KOSPO is actively working on a 3-year company-wide action plan for energy savings to improve performance and have better efficiency by replacing gas turbines with LED lighting at all the operational locations.

Energy Saving Action Plan

Target | Reduce Electricity Consumption by 30% by 2012
in comparison with the 2007-2009



Achievement | Save 48,282 TOE Energy
through implementing 10 ESCO projects, etc during the 2010-2011

※ ESCO Project: This is a system that energy service companies invest on energy saving facilities in advance, and recoup the cost by the energy saving cost of the energy users



Carbon Footprint Label Certificate



CCR Certificate

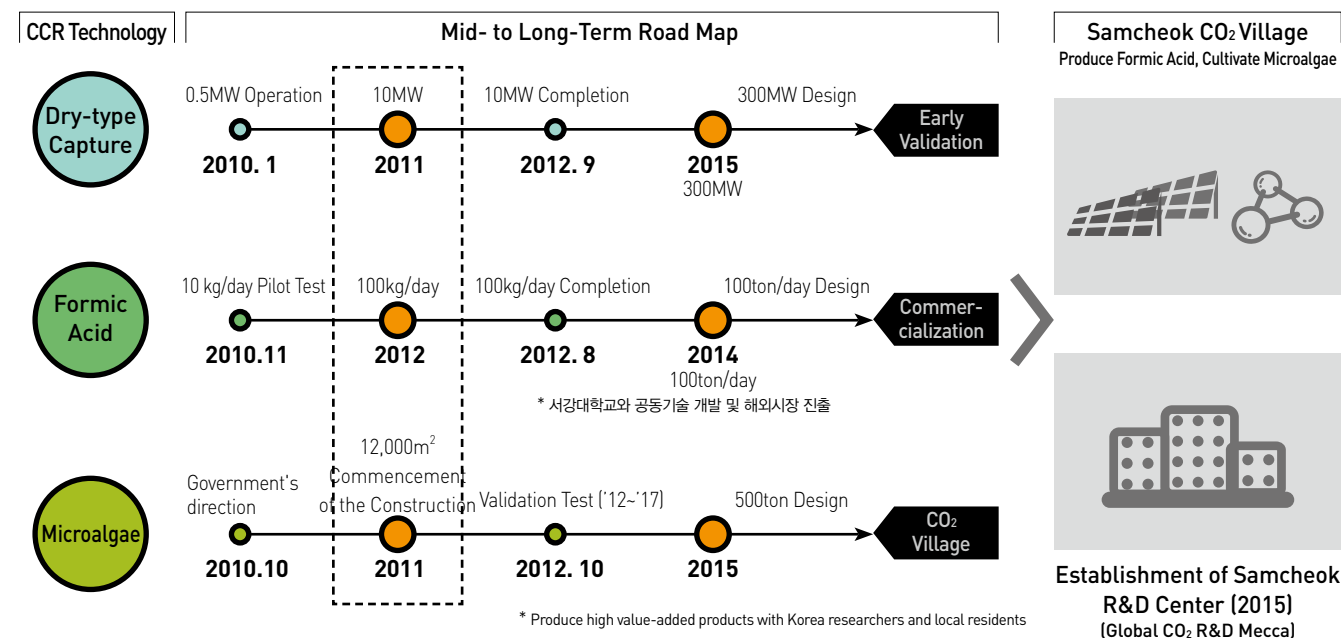
Carbon Footprint Label Certification

KOSPO acquired Carbon Footprint Label Certification from the Ministry of Environment in all seven sites including Hadong Thermal Power Site and Shinincheon Combined Cycle Power Site. Carbon Footprint Label Certification is issued when the life cycle of GHG emissions of a product is quantified by carbon footprint labeling. Carbon footprint labeling calculates the total amount of greenhouse gas emissions generated throughout the life cycle of a product, such as the input, production, transportation, distribution, use, and disposal of the raw materials. Backed up by its carbon emission management program, KOSPO further plans to save energy by improving its facilities' performance, reducing GHG emissions, adopting low-carbon power generation technologies, and finally acquiring Low Carbon Certification Goods by 2014.

Development of GHG Reduction and Treatment Technologies

While CO₂, produced from fossil fuel burning in the power generation process, poses a threat to the environment and the power generation industry, KOSPO will turn this challenge into an opportunity by creating a new sustainable growth engine through the development of innovative technology.

World's Largest Dry-Type Carbon Capture & Reuse (CCR) Technology



Formic Acid Pilot

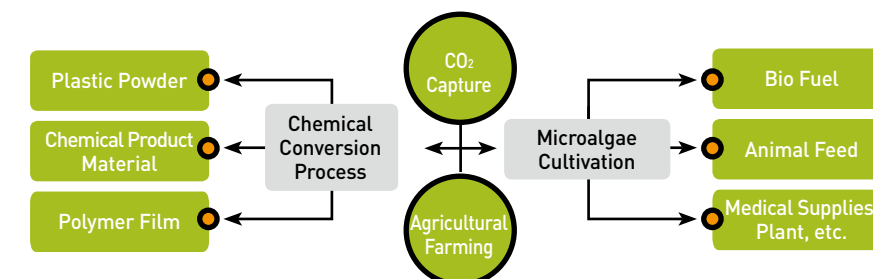


Formic Acid Demonstration Facilities



Microalgae Culture Ground

CCR Technology Development



CCR: Carbon Capture & Reuse

CCS: Carbon Capture & Storage

CO₂ Capture & Treatment Technology

KOSPO recognizes home-grown technology is a necessity and a prerequisite to securing global competitiveness in the carbon market, and thus developed Carbon Capture & Reuse (CCR) technology, which is a registered trademark. In 2010, KOSPO built a 0.5MW pilot plant, Hadong Thermal Power Site, in a bid to domestically develop and nurture CO₂ capture technology and successfully completed a validation test. Furthermore, KOSPO plans to conduct a more enhanced 20MW validation test at Hadong Thermal Power Site by 2014.

Electrochemical Technology to Convert CO₂ into Formic Acid (CHOOH)

Formic acid is an organic matter, which is widely used as an alternative to toxic chemicals, animal food preservatives, nutritional supplements, medical supplies, etc. KOSPO is currently developing a technology to electrolyze CO₂ into high value-added materials, such as formic acid (HCOOH), and carbon monoxide, in joint effort with local engineers. KOSPO earnestly kicked off the technology development in April 2012 and plans to take on a validation test by 2013.

Development of Microalgae using CO₂ and Creation of High Value

While it is widely recognized as the next generation bio diesel fuel, Microalgae is currently being globally competed for. KOSPO set up a High-Tech Algae Center at the Hadong Power Plant to mass-cultivate microalgae, which in turn is used to produce bio oil and high value added products like medicine, medical supplies, and cosmetics. Technology development effort is underway to complete a validation test and locally commercialize by 2017.

Aerial View of a Pilot Complex for CO₂-using Microalgae Cultivation



●● Use of Renewable Energy for Agricultural Farming



●● Use of Renewable Energy for Agricultural Farming

Use of CO₂ for Agricultural Farming

As inclement climate change consequently affects agricultural farming conditions, CO₂-injected greenhouse farming allows agriculture to grow without the weather impact and this technique is spreading across the globe. However, the domestic technology for such farming has not matured enough. A CO₂ injection into the farming greenhouse beyond the concentration level in the atmosphere boosts the rate of photosynthesis and thereby improves the quality and sweetness of the agricultural products and subsequently moves up the harvest season. Domestically, this farming technique is only used for Europe-export paprika. Farmers find it too expensive to buy the liquid carbon dioxide or dry ice solid carbon dioxide, or use a CO₂ generator or burn LNG. Also, CO₂ treatment and disposal is a challenge for the industry.

In order to overcome such challenges and promote a win-win growth for both the power plant and its neighboring farming and fishing communities, KOSPO is overseeing an elevated CO₂ farming area of domestic strawberries in a pilot project on a 250-pyeong sized land at the Hadong Thermal Power Site in a joint effort with Dong Kwang Chemical Co. and a CO₂ Tech Co. This pilot project aims to deliver innovative farming and captured CO₂ technologies to the farming communities to help supplement their future income growth. This will allow them to save fuel cost, and KOSPO also plans to provide the farmers with hot wastewater and a self-controlled heating and cooling system, which is expected to lower heating/cooling cost by 20% from their current levels and thus quintuple the farmers' future income. The energy-saving farming project beginning in Hadong will be gradually expanded nationwide.

CO₂ Village Project and Samcheok International CO₂ R&D Center

KOSPO will promote a CO₂ Village initiative at the Samcheok Green Power Plant starting in 2015 and expand the win-win project nationwide which will benefit both the power plants and the local communities. Through the development of CCR, microalgae cultivation and conversion to high value added resources, and formic acid production capability technologies, both KOSPO and local businesses will benefit by being more competitive in their respective industries which in turn will increase their profitability. A prime example is the pilot project at the Hadong Thermal Power Site, which is designed to provide CO₂ and hot wastewater and other CO₂ related technologies to the rural businesses and thereby driving up their income. Under the goal of securing a stronghold of CO₂ technology, KOSPO plans to set up and operate Samcheok International CO₂ R&D Center to house local and foreign companies, universities, and research institutions, to grow CO₂ and renewable energy-related technologies.

Renewable Energy

As the climate change is growing into a more than just a nation concern but into a world-wide affair, KOSPO is concentrating its efforts on a provision of the low-carbon electricity, the development of an innovative technology, and the expansion of renewable energy so it can reduce GHG emissions. In 2009, KOSPO established a "Renewable Energy Mid-Long Term Strategy" to pursue wind power generation as its specialized business, while diversifying energy sources to include photovoltaic power, IGCC, bio energy, and tidal power in response to the Renewable Portfolio Standard (RPS). As such, development of renewable energy is at the center of the company-wide initiatives.

Government Policy	Renewable Portfolio Standard (RPS)	Renewable Energy Business Development Plan				
	Goal: Promote renewable energy technology development Foster related industries for export purposes RPS performance rate: (2012) 1.4% → (2020) 11.14%	Item	2012	2015	2018	2020
KOSPO's Quota	Renewable Energy Business Goal	Power Generation (GWh)	817	2,011	4,835	7,670
		Installed Capacity (MW)	107	1,037	1,712	2,450
		Year	2012	2015	2018	2020
		Power Generation	230	690	1,240	2,000



●● Jeju Smart Grid PR Center



●● Solar-Light Power Generation



●● Taebaek Wind Power in Kangwon Province



●● Seongsan Wind Power in Jeju



●● Hankyung Wind Power in Jeju

In 2004, KOSPO set up four grid-tied 1.5 MW wind power units in Hankyong-myun, Jeju-do, for the first time in Korean history. Hankyong wind power unit in the 1st phase was 1.5MW×4 units. This project was followed by a successful establishment and operation of Hankyong wind power unit in the 2nd phase with 3MW×5 units, Sungsan wind power unit with 20MW, Taebaek with 18MW, and Changjook wind power unit with 26MW. The 2nd phase at Hankyong wind power unit and Sungsan wind power unit were registered as a CDM project to UNFCCC and thus are expected to bring in a certified emission reduction (CER) of approximately 64,000 tons/year. In 2011, UN granted 71,350 tons of CER to the 2nd phase at Hankyong wind power unit. Taebaek unit, completed in April 2012, is currently under deliberation by the CDM Executive Board of UNFCCC. Moreover, 1.4 MW photovoltaic power units installed inside the Hadong and Busan Power Sites were registered as CDM project in December, 2010.

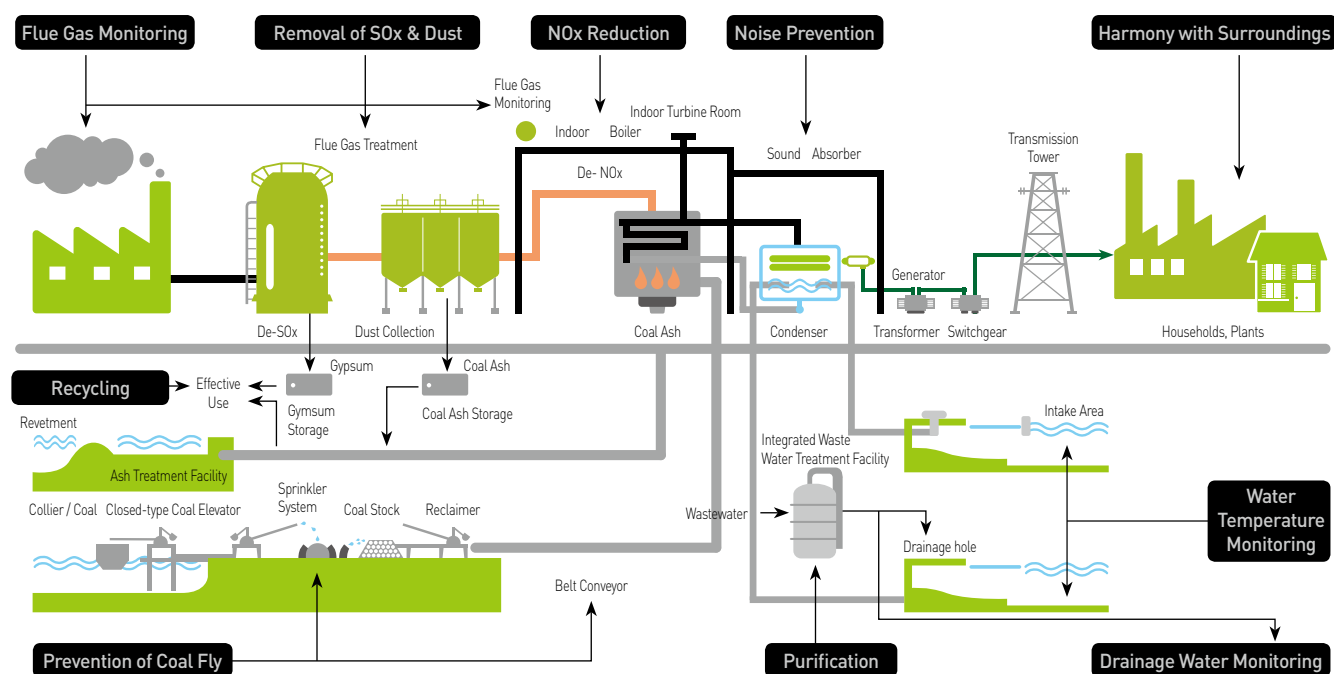
Environmental Pollution Prevention

✚ Air Pollutant Emissions Reduction

Air pollutants such as SO_x, NO_x, and dust are emitted from the power generation process. As part of efforts to minimize emissions, KOSPO installed the most advanced flue-gas desulfurization and electric dust collection facilities in Hadong coal-fired power plants, Namjeju heavy-oil fired Power Plant Units 3 & 4 and Youngnam Thermal Power Plant. Shinincheon, Busan, and Yeongwol Combined Cycle Power Sites are operating LNG-fired power plants, whereas Namjeju Thermal Power plant is burning low-sulfur heavy oil. We are also operating the latest SCR flue-gas de-NO_x facilities in Hadong Units 1-8, Youngnam Unit 2, Namjeju Internal Combustion Units 1-4, and Namjeju Steam Units 3 & 4. In the case of Shinincheon and Busan Combined Cycle Power Sites, the world's best Low-NO_x burner is well in place.

Combined Cycle Power Plants, located in the downtown of big cities, emit air pollutants during the period of plant start-up and shutdown. To resolve this issue, we developed a yellow plume reduction technology, for the first time in the world. Currently, the SNCR yellow plume reduction facility is installed at all units of Busan and Shinincheon Combined Cycle Plants. Additionally, by operating the wood pellet burning facilities, we are contributing to the reduction of all the pollutants' emissions.

Flow of Environmental Pollutant Treatment



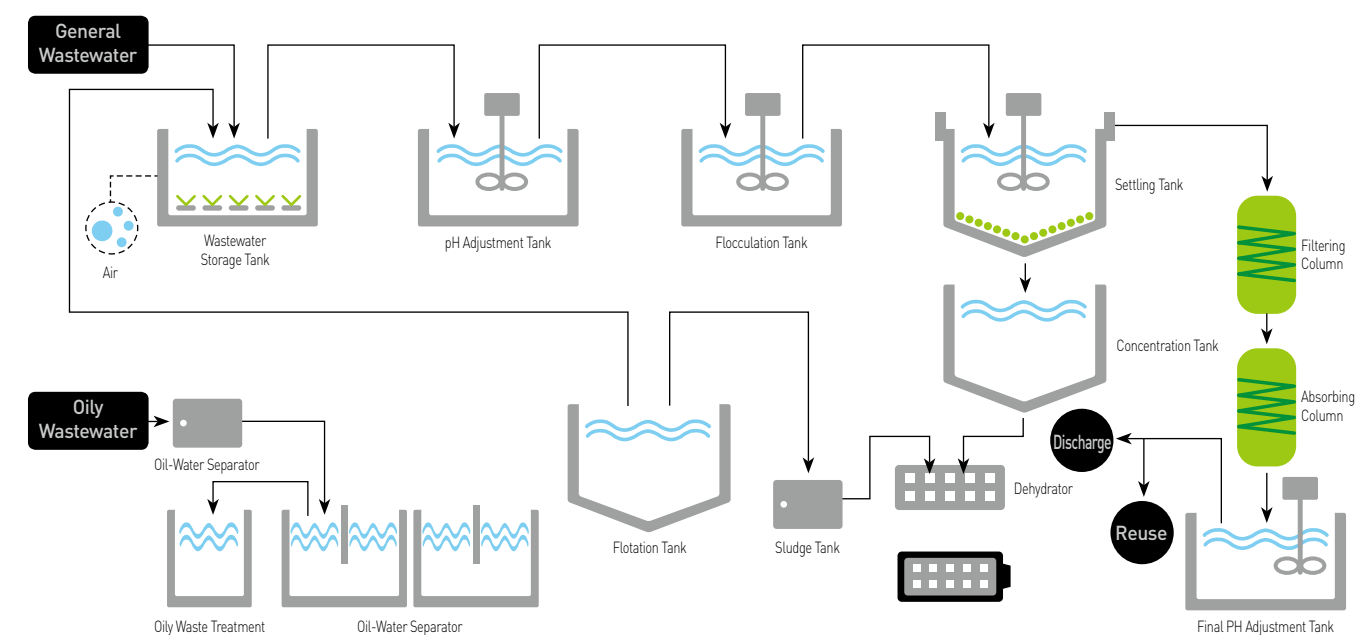
✚ Water Pollution Management

Wastewater Treatment and Recycle

Power plants generate wastewater in the process of managing boiler water quality, producing electricity, and running de-SO_x facilities. In order to treat wastewater, KOSPO has both integrated and de-SO_x wastewater facilities in operation. Water discharged from the integrated treatment facilities is clean enough to be used for ash recirculation for industrial purposes. Capturing rainwater at Hadong, Shinincheon, Busan, Youngnam, Namjeju, and Yeongwol facilities totaled 44,000m³/year in 2011 and 62,300m³/year in 2012. Wastewater was reused at 1,101,000m³/year in 2011 and 1,207,000m³/year in 2012. This is equivalent to a savings of KRW 425.14 million per year in 2011 and KRW 528.21 million per year in 2012.



Flow of Integrated Wastewater Treatment





●● Cultured Fish in Hot Wastewater Discharge Event

Fish Farms using Wastewater of Hadong Thermal Power Site

Fish Farm (Size)	Usage
Geumsung 10mØ×20 EA	15,000 tons/day (winter) 8,000 tons/day (spring, summer and autumn)
Sunil 8mØ×28 EA 11mØ×5 EA	20,000 tons/day Capacity 2 pump units in operation
Bosung 8mØ×16 EA	15,000 tons/day capacity 2 pump units in operation



●● The Harvest of Apple Mango Cultivated by Waste-Heat from Hot Wastewater

Hot Wastewater

Namjeju Thermal Power Site provides hot wastewater to gardening farms around the neighboring complex. This helps the farmers save cost, have better control of harvest timing and thus increase their profits. The three-way collaboration between KOSPO, Jeju Province Agricultural Research & Extension Services, and the farming cooperatives reaped in their first fruits of labor to the tune of 2.5 tons of apple mangos in March of 2012. This marks the first case of wastewater usage for farmers, in which 120 million tons of wastewater per year was used as the energy resource and saved the farmers a fuel cost of approximately 87%.

Hot Wastewater Reuse System

- ① Install heat recovery device in hot seawater tank (21~32℃) and use cooling water at the thermal power plant
- ② Connect heat-recovered water (15~27℃) to a heat pump via pipes
- ③ Heat water to 55~60℃ in a heat pump and keep it in a heat storage tank
- ④ Use water to heat the air at the farming greenhouse using a fan unit then grow tropical fruits

Additionally, Hadong Thermal Power Site provides hot wastewater directly to the land-based fish farms in its neighborhood to help fish farmers during the winter season and thereby saving them with fuel cost. Likewise, Yeongwol Combined Cycle Power Plant, works with local governments and rural community businesses, to take on varying initiatives to promote income growth of the gardening, farming and fishing communities by utilizing the usage of wastewater.



🌱 Waste Management & Recycling of Resources

Waste & By-product Recycling

About 30 kinds of waste materials are generated at power plants including coal ash from coal combustion, de-sulfurized gypsum from de-SOx facilities, waste oil, waste insulation material, and waste synthetic resin waste from the maintenance process. Currently, KOSPO recycles coal ash and de-sulfurized gypsum (12 kinds of waste) to turn the waste into resource, complying with laws and regulations. For by-products which are not recyclable (18 kinds) such as wastewater and waste insulation material, KOSPO relies on qualified waste treatment companies.

Major Waste Materials Generated by Power Plants

General Waste at Operational Locations	Domestic waste, sludge, heavy oil fly ash, de-sulfurized sludge, refractory waste, waste insulation material, waste synthetic rubber, waste synthetic resin, waste charcoal, waste concrete (construction waste), etc.
Designated Waste	Waste oil (liquid & solid), waste paint, waste acid, waste organic solvent, etc.



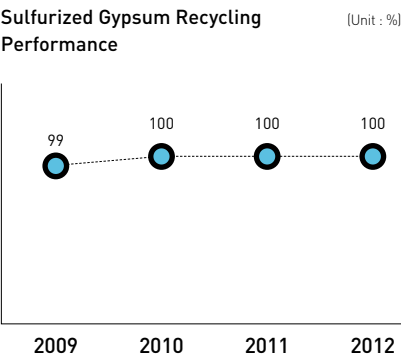
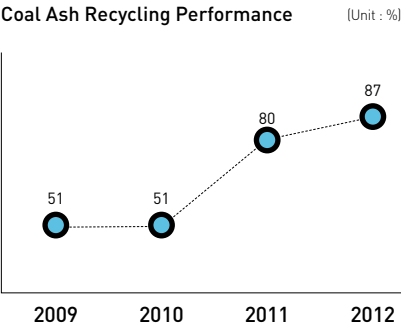
Recycling of Coal Ash & De-Sulfurized Gypsum

Nationally generated coal ash is approximately 8.60 million tons per year of which 6 million tons or 70% are reused for various purposes like concrete compounding of raw materials for cement (85%) and materials for filling the ground(15%). While the declining construction industry affects the utilization of coal ash, coal ash generated at Hadong Thermal Power Site is used more extensively not only for cement but also for solidifying iron core and filling the ground full of holes. In a bid to further increase the recycling rate, KOSPO is determined to broaden the customer base through administrative improvements and R&D.

KOSPO hopes to develop a new industrial resource and also raise awareness that coal ash is no longer a waste but a valuable resource of raw material. To implement a business initiative, a special purpose vehicle (SPV) Hadong Mineral Fiber Co. was established in June 2012. The first-phase production facility with 60,000 tons/year capacity will be completed by December 2013. When the third-phase construction is completed, up to 600,000 tons of mineral fiber will be produced annually to replace approximately 20% of the pulp imports. The project of turning coal ash to mineral fiber is expected to raise awareness that coal ash is not a waste but a new energy source.



KOSPO will seek to maximize gypsum recycling due to the diversification of gypsum uses. De-sulfurized gypsum is generated from de-Sox facilities and is almost always used as recycled raw materials for cement and plaster boards. Locally, gypsum is used as a cement retarder 55% of the time and as plasterboards 45% of the time. Recycling de-sulfurized gypsum as an industrial raw material saves KOSPO on landfill costs and helps prevent environmental contamination. Also, by replacing natural gypsum imports with recycled materials, KOSPO contributes to the safer green environment.



●● MOU Signing Ceremony for Coal Ash Recycling

✦ Noise & Soil Contamination Control

We worked to deal with the noise issue of power plants by installing a variety of equipment indoors and setting up silencers and sound-proof walls. In doing so, we have kept our noise level below the permissible requirement. In addition, we make sure to control soil contamination by carrying out a soil contamination inspection regularly at locations around the oil storage tank.

✦ Chemical Substance Control

Power plants are using about 15 kinds of chemical substances to prevent equipment corrosion, treat wastewater, and produce usable water. Chemicals used in various water treatment processes are turned into harmless substances after going through the wastewater treatment facilities. Efforts have also been made to use chemicals efficiently and minimize their environmental impacts, which include no injection of hydrazine, use of high efficiency flocculent, advanced methods of equipment malignance, and the development of alternative substances.

Use of Chemical Substances

Substance	Usage	Substance	Usage
Hydrochloric Acid, Sodium Hydroxide	· Water treatment facility: Power generation water production · Condensate polishing plant : Boiler water purification · Wastewater treatment facility : pH control	Hydrazine Ammonia Sodium Phosphate	· Boiler water treatment: corrosion prevention
Aid Coagulant Aluminum Sulfate	· Water treatment facility: Power generation water production · Wastewater treatment: turbid ingredient removal	Sodium Carbonate Sodium Bisulfate Sodium Hypochlorite	· De-SOx wastewater treatment facility: Heavy metals & COD removal
Antifoamer	· Foam removal at discharging outlets	Ferrous Sulfate	· Seawater treatment for coolant: Corrosion prevention
Chlorine Dioxide	· Drinking water treatment: Sterilization	Microbial Inoculant	· Sewage treatment: BOD removal



Eco-Friendly Construction

✦ Eco-friendly Engineering

KOSPO is constantly in pursuit of eco-friendly engineering. KOSPO applies green technology from the designing stage of a power plant construction and takes environment as the overriding consideration. Particularly, Samcheok Green Power, planned to be completed in 2015, will become a model of eco-friendly and cost-efficient power plant, which can be exported to overseas markets.

Power Plant without an Ash Pond

Conventionally, coal-fired thermal power plants have ash pond to keep coal ash and the pond is almost as large as the power generation site and as publicly recognized as unpleasant facilities. Nevertheless, for the first time in Korea, KOSPO plans to build a green power plant, which has no ash pond, with 100% recycling of coal ash into varying resources, such as cement and concrete compounds, artificial lightweight aggregate mineral fibers, and artificial fish reefs.

Green Indoor Coal Storage

Coal-fired thermal power plants are fueled by coal. And this is why the site needs a space to store coal. And since the coal stockpile is huge, it is often exposed outdoors, and subsequently generates fly ashes and thus environmental contamination and damages, let alone being unpleasant scene. To minimize environmental damages, KOSPO has improved and replaced the outdoor coal storage unit with indoor facilities. On top of Samcheok Green Power units, which as under construction, currently operating Hadong Thermal Power Site is changing its second storage unit to indoor facilities.

No Wastewater Generation

KOSPO promotes 100% recycling of wastewater. To this end, KOSPO adopted a consolidated water treatment system, in which wastewater generation goes through a series of purification process and travels to the water provision system generating usable and clean water.



●● Eco-friendly Samcheok Green Power (to be Completed in 2015)

Renewable Energy

KOSPO is continuously establishing renewable green energy facilities within power generation sites. Small hydro power systems operate on wastewater from the sites. At the same time, KOSPO installs and operates a variety of sunlight and wind power generation facilities to promote sustainable green power generation

Environment Monitoring

Apart from environmental impact assessment, KOSPO sets up and operates an ‘Environment Monitoring Council’ whenever a new operational power plant is in construction. This consists of local residents, specialists, contractors, and local government officials, who oversee and monitor over long period of time the environmental impact the plants will have in the environment and the local community. This reaffirms KOSPO’s commitment to green entrepreneurship.

Protection and Restoration of the Marine Ecosystem

As protected marine species were found in and around its operation sites, KOSPO took it upon itself to protect and restore the marine ecosystem after consultation with the experts. KOSPO realized the importance of the marine life around the coast line and began studying the effects of its operational plants and the surrounding areas. For example, KOSPO learned that there is a connection between sea plants and the migration of species which they found out after an environmental survey was conducted.

Environmental Impact Assessment

KOSPO conducts an environmental impact assessment on neighboring areas and develops a management plan to proactively minimize the possible damages caused by the power plant construction on neighboring ecosystems and the environment. KOSPO also considers designing alternatives, such as changing construction sites, vibration reduction technologies, and reducing fillings of wetlands whenever possible when the construction of a particular site calls for it. KOSPO always takes action to protect the ecosystem when legally protected species are identified in the impact area.

Environmental Impact Assessment

Project	Location	Discussed with	Approved by	Survey Period
Hadong #7&8 Construction project	Ilwon, Kadoek-ri, Kumsung-myun, Hadong-gun, Kyungsangnamdo	MOE	Ministry of Commerce, Industry & Energy (MOCIE)	Nov. 2005~Dec. 2014
Hadong #7&8 Construction, Re-discussed project	Ilwon, Kadoek-ri, Kumsung-myun, Hadong-gun, Kyungsangnamdo	MOE	Ministry of Knowledge Economy (MOKE)	Mar. 2010~Jul. 2016
Hadong Ash Treatment Facility Extension project	Inside the power site, Kadoek-ri, Kumsung-myun, Hadong-gun, Kyungsangnamdo	MOE	MOE	Jan. 2000~Sep. 2012
Hadong Coastal road opening project	Kadoek-ri, Kumsung-myun - Norhang-ri, Kumnam-myun Hadong-gun, Kyungsangnamdo	Environment Agency	County Office	Nov. 2007~Apr. 2015
Yeongwol Construction project	702 Jungyang-ri, Yeongwol-up, Yeongwol-gun, Kangwondo	MOE	MOE	Jan. 2008~Feb. 2016
Construction project Namjeju #3&4 Construction project	610 Hwasoon-ri, Ahndeok-myun, Seogwipo-si, Jeju-do	Jeju Local Government	MOE	Jun. 2004~Sep. 2012

Environmental Management on Construction Sites

| Air Quality |

KOSPO developed standards on air pollutant emission and treatment facilities, installed vibration isolation wall barriers and automated water spray system, introduced real-time monitoring system, and posted monitoring result updates in an electronic display.

| Water Quality |

Wastewater treatment facilities, marine environment management, installation of diversion waterway and grit chamber, and strict management of water treatment facilities.

| Land and Soil |

Restriction of equipment repair and maintenance, oil change, etc. on site.

| Noises and Vibration |

Installation of sound and vibration proof facilities on the needed section, use of low noise machineries, speed control and sound proof wall installation at construction site.



Eco-Friendly Construction

KOSPO aims to minimize the environmental impact throughout the construction process to ensure efficient land use of existing facilities and properly cope with environmental impact on the site and its surroundings. To efficiently use the land and prevent excessive mining of the area, KOSPO is making every effort to make arrangements in the construction plan to be eco-friendly and employ environmental safe management endeavors for conservation of environment and ecosystem.

Land Restoration Activities

KOSPO took the initiative and arranged the remaining gravel to be delivered to a local LNG gas production and landfill company instead of recklessly disposing it near the construction site. Through this initiative, KOSPO demonstrated a win-win model for both itself and the local community. What one might call trash another might call a resource. KOSPO was able to help the local business by allocating an essential resource while at the same time safely disposing of unwanted gravel.

Arrangements to Prevent Reckless Land Mining

KOSPO’s eco-friendly management philosophy is reflected in the construction platform. Arrangements are made at the construction sites to help protect the natural environment and prevent excessive land mining. KOSPO also requested the Korea Forest Service improve the mandatory requirement of the berm width from the current 15m to 5m. This reduction will result in less land mining in comparison with original arrangement plan. KOSPO’s effort to preserve the natural topography proves the management wants to protect the ecosystem as much as it possibly can.

Recycling of Existing Facilities

KOSPO negotiated with the Gangwon province’s government officials so it could recycle the Tetrapods (TTP), which is a four-legged concrete structure used as protection against massive waves, at the Samcheok Green Power Units 1 and 2 as reinforcements at a nearby port facility instead of discarding them.

※ TTP (Tetrapod): A four-legged concrete structure used as protection against massive waves

Environmental Management on Construction Sites

KOSPO takes the lead in environmental protection activities through management of such factors as air quality, water quality, land soil, noises and vibrations at construction sites.



●● MOU Sign on Soil Supply for LNG Production Base Landfill



●● TTP Salvage Work in Hosan Harbor

SOCIETY

04

Social Performance

48	Employees
54	Safety and Health
55	Community Contribution
56	Shared Growth
58	Social Contribution

KOSPO established a variety of activities and programs to give hope and trust to the employees, who in turn will help the company lead a sustainable growth with the cooperation from the suppliers and the communities.



Sung, Ki Jung
_ Power Generation Department

Kwak, Dong Won
_ Business Strategy Department

Employees

Human Rights Protection

Guarantee of Three Labor Rights

KOSPO guarantees an employee's right to organize, and bargain and act collectively. Under the open shop policy, new employees can feel free to join a labor union if they so choose. Once they become members, the employees are entitled to the union benefits according to the labor union regulations and the collective bargaining agreement. In 2012, the labor union ratio was 66.4% and collective agreement application ratio was 100%. There is a minimum notice period for major business changes which is decided by the labor management council when there is a human resource displacement or an adjustment of employment. [Collective Agreement Article 25]

Overview of Labor Union

KOSPO belongs to both the enterprise and the industry labor unions. KOSPO's labor union was established on June 7, 2011 and has a central office, 9 branch offices. As of December 31, 2012, 1,039 employees belonged to the union. The Korea Power Plant Industry Union which was established on July 24, 2001 has a central office, 5 head offices, and 23 branch offices. As of December 31, 2012, 230 employees belonged to that union.

Prevention of Child Labor

KOSPO observes the convention concerning the prohibition and immediate actions towards the 'Elimination of the Worst Forms of Child Labor', an agreement on the prevention of child labor under the ILO. KOSPO prohibits hiring those who are under the age of 18. As a company with strictly observing labor practices, the laws, regulations, and the collective agreement which banned child labor, KOSPO has never broken the law for child laboring.

Prevention of Forced Labor

We abide by the principles of the UN Global Compact in the Labor area. Labor-management equality in the negotiation process and labor conditions are clearly stipulated in the collective agreement of KOSPO. As a result, we have no record of forced labor.

Prevention of Discrimination

KOSPO prohibits discrimination on the grounds of gender, religion, and membership of political party or labor union for employment, promotion, placement, and wage determination. The same rate of base wage is applied to male and female workers. In addition, the eradication of gender discrimination and the protection of female workers are clearly announced as obligations and the ban on gender discrimination is stipulated in the collective agreement. Besides we emphasize joint labor-management efforts to prevent sexual violence in the workplace.

Human Rights Education

Female workers are a minority group in the workplace. KOSPO provides regular education on prevention of sexual harassment and sex trafficking in the workplace to protect women as prescribed by Article 13 of the Equal Employment Act. All employees attend the education at least once a year. Education on human right protection is provided on a regular basis and additionally 3-hour education on human right protection is provided for all employees every year as part of online integrity training.

Screening on Human Rights

KOSPO adopts a comprehensive appraisal system, including respecting human rights and labor laws, when selecting the maintenance contractors. For example, in 2010, when selecting a contractor for Jordan O&M project and Subsidiary Building Construction Project, provisions on local workforce employment and development, contribution to local economy and respect for human rights were included in the contract.



● Annual Sexual Harassment Prevention Education

Employees Status

As of 2012, KOSPO has a total of 1935 employees. Of the 1935 employees, 1753 are male and 182 are female. The number of female employees has increased by an average of more than 8% every year since 2009. In 2012, the number of newly employed males was 103 and females 23. The retirement ratio is 0.15%.

Fair Appraisal and Reward

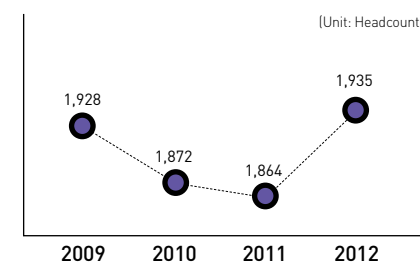
Corporate Strategy and Individual KPI

KOSPO's fundamental assessment when evaluating management performance lies in the achievements of the corporate vision and strategy. KOSPO generates organizational evaluation criteria according to the short and long term action plans from the top down and bottom up methods. The organizational evaluations are assigned to each member of the company which leads to individual evaluation criteria. Through this process, all evaluation criteria are connected to the corporate strategy and the achievement and each individual's contribution to the achievement of the corporate strategy. Management's performance is processed and evaluated in real time.

One-Cycle Consolidated Performance Management System which consists of Strategy, Evaluation and Compensation

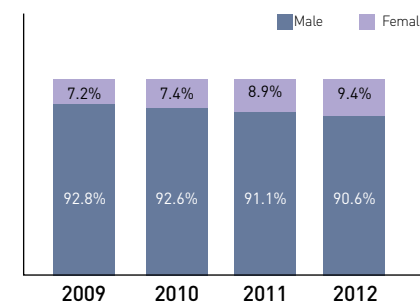
Achievement of the action plans are managed through the KPI management system and monitored on a real-time basis under the consolidated performance management system. In addition, KOSPO is transparent about performance management system in the whole process including quantitative and qualitative measurements, appraisal scores, and computation and payment of differentiated incentives. The upper management is able to check the entire performance of the company and examine, in detail, whenever necessary. In addition, individual employees can monitor their own KPI and that of the organization. KOSPO laid the groundwork for continuous performance management operation by connecting the performance management system and the MBO system through the IT infrastructure.

Total Number of Employees



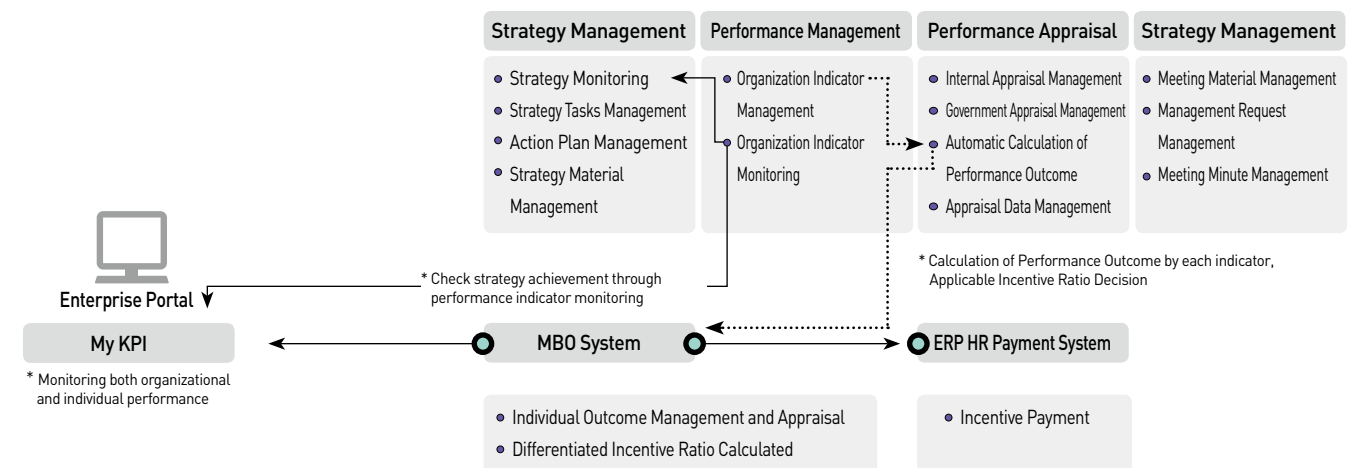
※ Dispatched Full-timers are not converted into headcounts in 2011 and 2012

Male and Female Employees Ratio by Age/Year



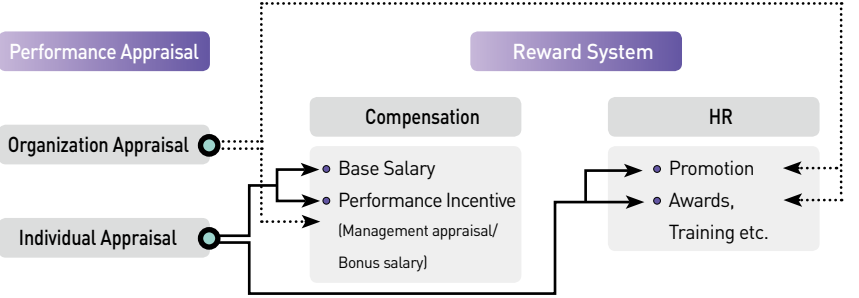
● Major Leadership Capabilities Education for Managers

Consolidated Performance Management System



Performance Appraisal and Compensation

KOSPO established a performance oriented culture within the organization by compensating as well as granting training opportunities to individuals and as groups with high performance. The performance appraisals are assessed both as a department and as an individual. Rewards include compensation and promotions and are based on the performance outcome. Base salary and incentive bonus (the highest bonus amount is double the lowest amount) depend on appraisal outcome of the organization and the individual.



Welfare System

Welfare Program

KOSPO is a company where all employees are willing and happy to work. For work and life balance, KOSPO supports family-oriented policies, and promotes freedom to ascertain leisure activities when they are not at work. It also provides various programs which directly benefits the lives of the employees including residence stability benefits and educational support to improve the health and happiness of the employees.

Work and Life Compatibility Culture

KOSPO has implementing various family-oriented policies to improve the employee's engagement at work and increase business performance with the creation of the work and life compatibility culture.

Family-Oriented Programs

Program	Description
Flexible Work	Selective and flexible working hours available and part-time work
Maternity Leave	Pregnant up to preschool child under the age of six
Childbirth Encouragement, Childcare Support	Multi-child family childbirth grant, child education expense, discounted interest rate on loans for multi-child care employees
Smart Work	Telecommuting using smart work center
Substitute Workers Bank	Substitute workers pool for employees on maternity leave or childcare leave
Employee Family Unity Event	Parent workplace experience, Family volunteer activity, Science and English Camp.
Family Harmonization	Family day observance, support for family celebration activities



•• Awarded for "Top 100 Companies to Work for" in 3 Categories



•• KOSPO Orchestra that Consists of KOSPO Employees



•• Awarded for "Top 100 Companies to Work for" in 3 Categories

Benefit Package to improve employee happiness

KOSPO believes in the motto, "Happiness of employees is the happiness of the company", and therefore implements many benefit packages to management and employees to improve their quality of lives.

Benefit	Description
Residence Stability	Housing support, housing loan, disaster relief fund
Stability of Livelihood	Life insurance, group insurance, life stability loan
Education	Educational support for preschool children, school expense for middle and high school students
Congratulations and Condolences	Congratulation bonus, condolence money, condolence flowers and funeral arrangements
Health Improvement	Financial support for medical checkup, national early cancer diagnosis, health counseling, and medical record tracking
Selective Welfare	Support for individual selection of souvenir and cultural activities

KOSPO was selected as the archetype company for "Work and Family Compatibility" and the "Best Family-Oriented Company" by the Ministry of Gender Equality and Family. In addition, KOSPO was publicly recognized for its effort to bring happiness to its employees by winning top prize for the "Top 100 companies to work for" for two consecutive years. KOSPO has also won three distinguish awards for "Trust Management Award", "Best CEO Award", and "Innovative Team Achievement Award" through its tireless efforts of being an employee-friendly environment.

Fostering Talent

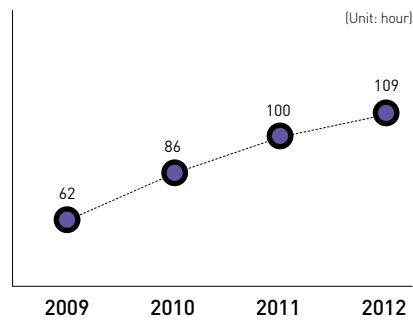
KOSPO, based on the CEO's philosophy of talent management, is becoming an expert at fostering talent by incorporating the e-HRD system, which executes competency based training to all employees. KOSPO has focused on leadership and integrity training while strengthening the functional training at the power generation facilities to create consistent job performance by the new recruits. KOSPO is expanding its professional training to include renewable energy capabilities.

Reestablishment of Fostering Talent and Infrastructure Expansion Based on CEO's Talent Management Philosophy

Fostering a Creative Future Leading Type of Talent

KOSPO set a goal to nurture talent and reestablish the concept of bringing in new leaders, who are creative, ethical, and universal talents, who can implement management strategies based on their professional expertise. This philosophy is based on competitive leadership development awareness ideology that reflects the CEO's management policy. To execute the CEO's talent management policy, talent nurture department was spun off from the human resource department and reorganized to work directly under management.

Education Hours per Employee (Hour)



※ Implement mandatory leadership capability education for level 1~3 in 2012

Establishment of Capabilities based Education Training System

Development Training System

KOSPO understands the systematic needs of the organization and individuals through its multi-dimensional analysis of each employee. Furthermore, based on the results of the diagnosis of every employee under the capability model, a training system was established to focus on four major areas of need. They are common skills, leadership skills, job skills and global skills which are regularly examined through the performance indicator management system.

Self-Initiative Development and Nurturing System

Self-Initiative Development and Nurturing System

KOSPO has developed 3 types of expert training and nurturing systems to satisfy an employee's desire for career advancement through the organization. The 3 types of expert training are functional, managerial and international which are all self-initiated and require a manager to nurture the employee. Functional covers the overall functions of the company. Managerial involves job rotation to learn different aspects of the business. International includes learning the international aspect of the business. Employees can initiate any type of training by going through the e-HRD system of "Design Me" and self-appraising their own professional knowledge and capabilities.

Implementation of KOSPO Developed Leadership Training Course

'Communication and Coaching' Centered Leadership Training

KOSPO put priorities on leadership development to align the individuals with organizational direction and to focus on communication and nurturing. It developed leadership training programs customized to different levels based on each employee's results of the multi-dimensional capability diagnosis. The leadership training is provided to all management from executives to managers. Through this training, a homogenous culture within the organization was created between the supervisors and the subordinates and increased credibility to the MBO performance appraisal system.

Core Business Connected On-the-job Training

On-the-job Training for Stable Power Supply

KOSPO systematically developed power generation facility experts by establishing a training road map and adopting an in-house certification system which requires employees to fulfill assignments and take required training courses from the beginning of employment. Training for power generation facilities operator was intensified as it includes remote mock training courses to prevent unexpected breakdowns in times of a nationwide power shortage. KOSPO also introduced in-house certification system for overseas employees and continues to develop customized trainings. To help grow the renewable energy business, KOSPO fosters experts in the wind power companies and the separate graduate school of wind power.

KOSPO Best Integrity Company

KOSPO was selected as the best integrity public corporation for 3 consecutive years by the Anti-Corruption and Civil Rights Commission (ACRC) of Korea. A variety of integrity training programs are continuously provided to all employees from the CEO to the new employees. KOSPO's integrity training efforts includes special lectures by experts outside the company, field trips to Ahn-Dong Scholar Culture Center, the Marine Corps experience, and a company-wide field work case study on contracts and material management. These are some of the reasons why KOSPO has been a leader and will continue to have integrity within its organization.



●● In-house Specialized College Course



●● Agreement on Local Technology Talent Fostering

Cooperative Labor Relations

Mechanism for Advanced Labor Relations

KOSPO has set up mid to long term strategies for advancement of labor relations in order to build trust between the labor unions and management, and further improve labor practices. To this end, KOSPO has identified and implemented four main strategies.

Visible Management Performance through Cooperative Labor Relations

KOSPO and the labor union reached an agreement on stable electric power supply and implemented twelve technical examinations at all plants during power peak times and seventy-seven industry safety inspections to lower industrial accidents and improve the work environment. Cooperative labor relationship is necessary to provide stable electric power during times of national power crisis. To this end, KOSPO ranked 1st amongst power generation facilities by winning in the areas of facility breakdown, heat efficiency, plant electric power ratio, and revenue and power sales quantity.

Corporate Social Responsibility

KOSPO is actively involved in social contributions by providing scholarships to low income families and helping out the local communities by working with the labor unions. KOSPO's labor union provided KRW 102 million in scholarships to 166 middle, high school, and university students from low income families who resided around the power plant by voluntarily raising educational funds which are deducted from the employees' salary. In addition, labor unions jointly formed 17 volunteer groups and initiated social support activities like replacing obsolete electric facilities and supporting senior citizens who live alone by delivering briquettes. Labor unions were involved in many community outreach programs. In 2012, it agreed to replace union foundation souvenirs with gift certificates for conventional market and accordingly expected to annually contribute KRW 350 million to the local communities starting in 2013. In 2012, the union purchased KRW 500 million worth of gift certificates for conventional markets and KRW 30 million worth of regional specialized goods.

Public Recognition through Cooperative Labor Relations

KOSPO received "The Best Labor Culture Award" from the Ministry of Employment and Labor. This award is given to 12 domestic corporations in recognition of no conflict, no accident and social responsibility results from cooperative labor relations between the company and the union. For two consecutive years, it was selected as the "Labor Management Suppliers Financial Support Business" and received KRW 47 million of government funds which is given to corporations with credible and respectful labor culture. The Ministry of Employment and Labor certified KOSPO as "The Best Workplace Innovation Corporation" in recognition of the improved quality and productivity as well as an ameliorated work environment through its cooperative labor relations in 2012. Based on these achievements, KOSPO was awarded triple prize by GWP as having the best management credibility, best CEO and innovative team performance in competition amongst the best corporation work environments.



●● Tripartite Cooperation Declaration



●● Labor Union Joint Baseball Club Activity 'Harmony'



●● Labor Union Joint Declaration for Stable Power Provision

Safety and Health

✚ Safety and Health Management Policies

KOSPO recognizes that health and safety concerns are vital to a company in establishing a safe working environment and in becoming a 'Global Top 10 Power Company'. Management has implemented many health and safety policies by which all employees must participate during their daily job functions. Meanwhile, KOSPO headquarter and all power plants received the KOSHA 18001 and K-OHSMS 18001 certification which is effective for 3 years maintaining through ex post facto management.

Certification of Safety and Health Management System (K-OHSMS 18001)

Power Plant	HQ	Hadong	Shinincheon	Busan	Youngnam	Namjeju	Youngwol	Samcheok
KOSHA18001	Jan. 2, 2012	Sep. 23, 2004	Nov. 28, 2003	Sep. 23, 2004	Sep. 23, 2004	Oct. 15, 2004	Nov. 25, 2011	Dec. 26, 2012
K-OHSMS18001	Dec. 12, 2011	Sep. 14, 2011	Dec. 12, 2011	Sep. 14, 2011	Sep. 14, 2011	Nov. 28, 2011	Dec. 5, 2011	-

※ KOSHA (Korea Occupational Safety Health Agency): Korean Industrial Standards (Evaluated by Korea Occupational Safety Health Agency)

※ K-OHSMS (Korea-Occupational Health & Safety Management System): International Standards in common use (Evaluated by Domestic certificate authority)

※ Scheduled for acquisition of KOSHA 18001 and K-OHSMS 18001 on Samcheok and Andong plants after its completion

Industrial Safety and Health Committee

KOSPO Safety Management Committee and Industrial Safety and Health Committee

KOSPO Safety Management Committee, in order to maintain objectivity, is composed of five internal and five external members, consisting of professors, government and non-government members, labor union members, and executives. Their role is to deliberate on safety management matters, such as safety policies and implementation of safety strategies. Since the committee started in November of 2012, it has convened two meetings, where a key role was played in deliberating on KOSPO's short and long term safety road map and management strategies. KOSPO also established the Industrial Health and Safety Committee for each operational site, composing of equal member representation of the company and of the labor union respectively. It deliberates on the basic premise of the company's health and safety regulations, investigation on cause of accident and prevention of accident, safety and health improvement measures and elimination of hazardous work environment. It resolves issues regarding drafting and alteration of safety and health related regulations, work environment improvement including measuring and monitoring of work place environment and health of workers including the medical check-up.

Accident Rate

Classification	2009	2010	2011	2012
Accident Rate	0.05%	0.11%	0.06%	0%

※ There were no accidents in 2012, therefore the accident rate and the severity rate for that year is 0%.

Safety and Health Education

Safety and Health Education and Training

KOSPO implemented a health and safety education course for the new recruits because of an industrial health and safety regulation. These courses are intended to eliminate hazardous and dangerous work, by having special and regular training regimens. Also, to promote the health and safety of the employees and also of the suppliers, KOSPO developed and implement customized training programs for each selective field. That way, KOSPO can strengthen the education and training necessary to enable workers to prevent accidents by themselves.

Support for Safety and Health of Suppliers

Support for Environmental Safety and Health of Vendors

KOSPO has been active in preventing the safety disasters or accidents of vendors. By supporting and requiring the vendor health and safety certification, making the vendor self-manage hazardous and dangerous factors, and also helping with the education of health and safety regulations, the health and safety issue can be fought and won by every company KOSPO is currently doing business with.



●● KOSHA 18001 Certificate



●● K-OHSMS 18001/OHSAS 18001 Certificate

Community Contribution

KOSPO promotes systematic community contribution activities for the joint development from the construction stage in an effort to expand the concept of "Happy Community due to Power Plant". We realized the welfare of the areas through which the residents were benefited in their real lives and aims for cooperative development with the communities by establishing a variety of support programs including job creation, income growth and other resident-based activities.

Joint Implementation of Customized Social Contribution with Vendors

KOSPO has implemented many beneficial social contribution programs that have been desired by the communities themselves. In order to improve the effectiveness of the activities, KOSPO formed and operated a T/F, a joint consultative body with the suppliers and studied the support program models in cooperation with the local universities. Through this, twenty-two support business models were created and a social contribution joint action model was produced to promote shared growth of communities and the suppliers.

Realization of Resident- Based Welfare by Improving Community Support Fund System

KOSPO has been trying to plan the use of the a neighboring power plant support fund with a goal of providing substantial electricity benefits to the local residents and promoting community social welfare. KOSPO provides realistic support to the communities by benchmarking other successful community support programs, figuring out the scope of the support target and acquiring the funding. As a result, KRW 440 million of additional community support fund was secured and better understanding was acquired on the power plant businesses.

Construction of Cooperation System Friendly with Small-and-Medium-Sized Local Companies

With KOSPO's official construction business launch, it expanded the partnership contract of local companies in an effort to provide more opportunities for the local companies to participate in the construction businesses. KOSPO also increased the compulsory partnership contract rate from 5% in the past to a maximum of 10%. In addition, the community-limited construction contract has been enforced so that companies in the community could directly participate in the construction business when it comes to small-sized public corporations.



●● Lovely Companion with Samcheok Citizens



●● Community Contribution Implementation Agreement Ceremony

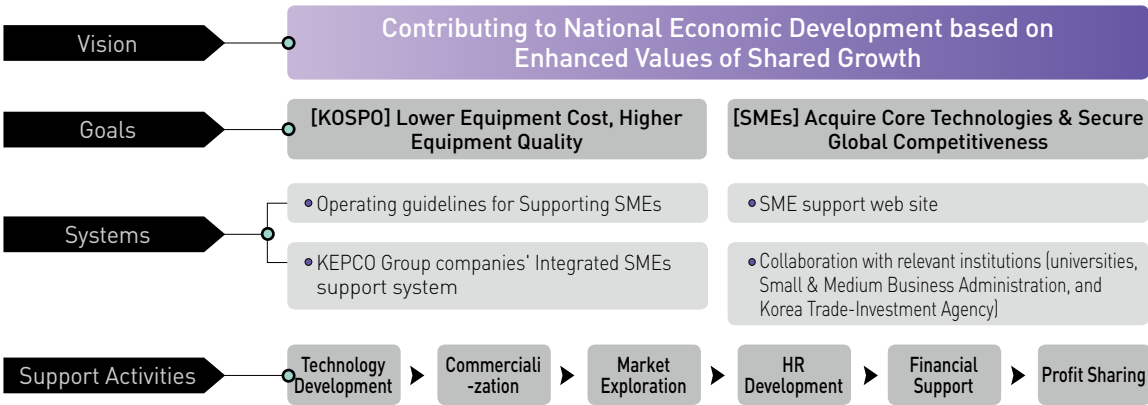
Shared Growth

Shared growth with Small-and-Medium-Sized Companies

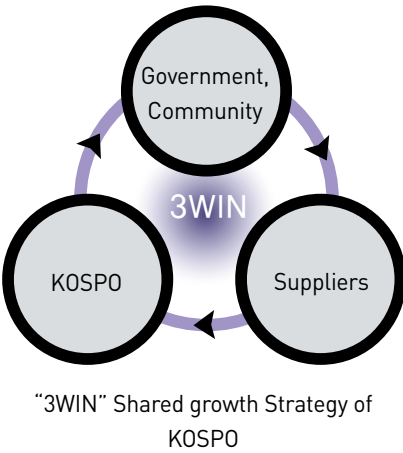
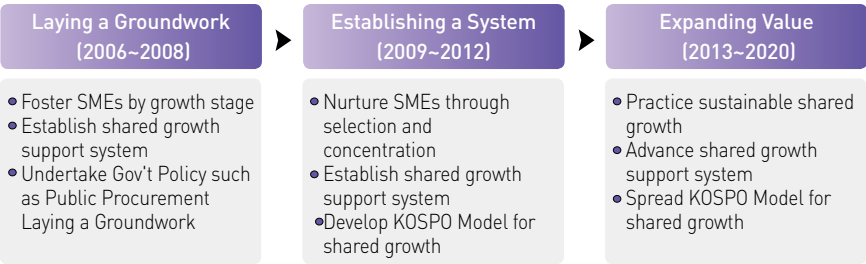
Vision and Goals of Shared Growth with SMEs

KOSPO promotes a new 3WIN joint development model in order to contribute to the development of communities and national economy through shared growth with SMEs. To this end, we have implemented diverse shared growth projects with SMEs in the areas of technology development, commercialization, sales channel exploration, HR development, financial support, profit sharing. These projects form a virtuous cycle that helps SMEs to become small but strong companies and contribute to the development of the nation while enabling us to reduce equipment cost and improve quality of equipment and materials. For these efforts to pay off in the mid- to long-term, we incorporated it into the [2020 mid - to long- term management strategy plan].

Vision and Goals for Shared Growth



Vision and Goals for Shared Growth



● Donation of SME's Profit Sharing, KRW 100 million, to UNICEF
- Photo with Sung-ki Ahn (right), the Goodwill Ambassador of Unicef

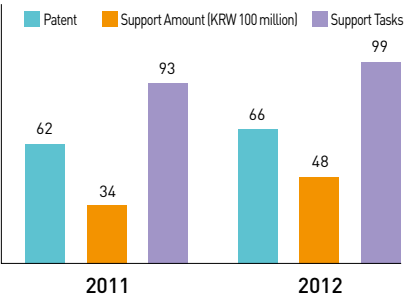


Action Plans and Performance of Shared Growth with SMEs

KOSPO implements Shared Growth Projects on R&D, sales channel development, financial liquidity and HR development; management & technological consulting, extended profit sharing are in the works.

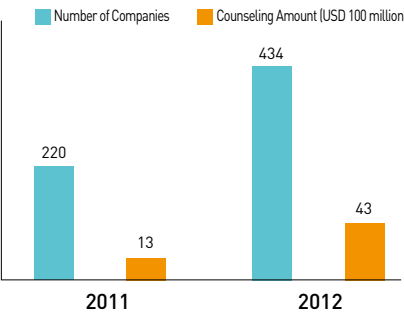
Action Plans and Performance of Shared Growth

Business Area	Projects	Performance
Field R&D	Spot support for field urgency	21 Development tasks
Joint R&D	Support for mid and large projects	55 Development tasks
Private and Public Joint Investment	Gov't sponsored new technology development	13 Development tasks
Small Giant 300	Comprehensive support for technology development/commercialization	10 Development tasks



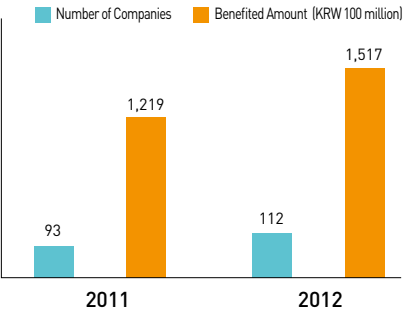
Sales Channel Development Home & Abroad

Business Title	2011	2012
Internal & External Exhibitions	171 companies, 8 times	289 companies, 16 times
Purchasing Counseling	49 companies, 10 times	145 companies, 10 times
Newspaper Advertising	20 times	23 times
Joint Market Entrance Home & Abroad	2 cases	4 cases
KOTRA Branch Business	2 cases	6 cases



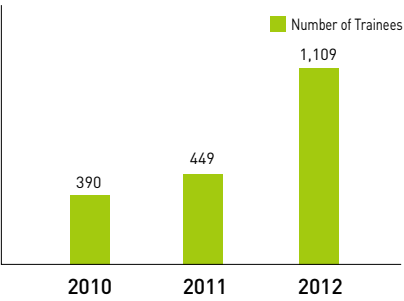
Financial Liquidity

Classification	2011	2012
Power Energy Loans	KRW 1.76 billion, 14 companies	KRW 2.9 billion, 14 companies
Power Venture Fund	KRW 0.42 billion, 32 companies	KRW 0.42 billion, 32 companies
Down Payment System	KRW 25.1 billion, 47 companies	KRW 13.2 billion, 66 companies
SME Product Purchase	KRW 94.6 billion	KRW 135. 2 billion



HR Development

Classification	2011	2012
Transfer of Maintenance Skills and Certification Holding	385 persons	408 persons
National Human Resource Consortium	506 MD	2,578 MD
KOSPO Job World	12 persons	26 persons

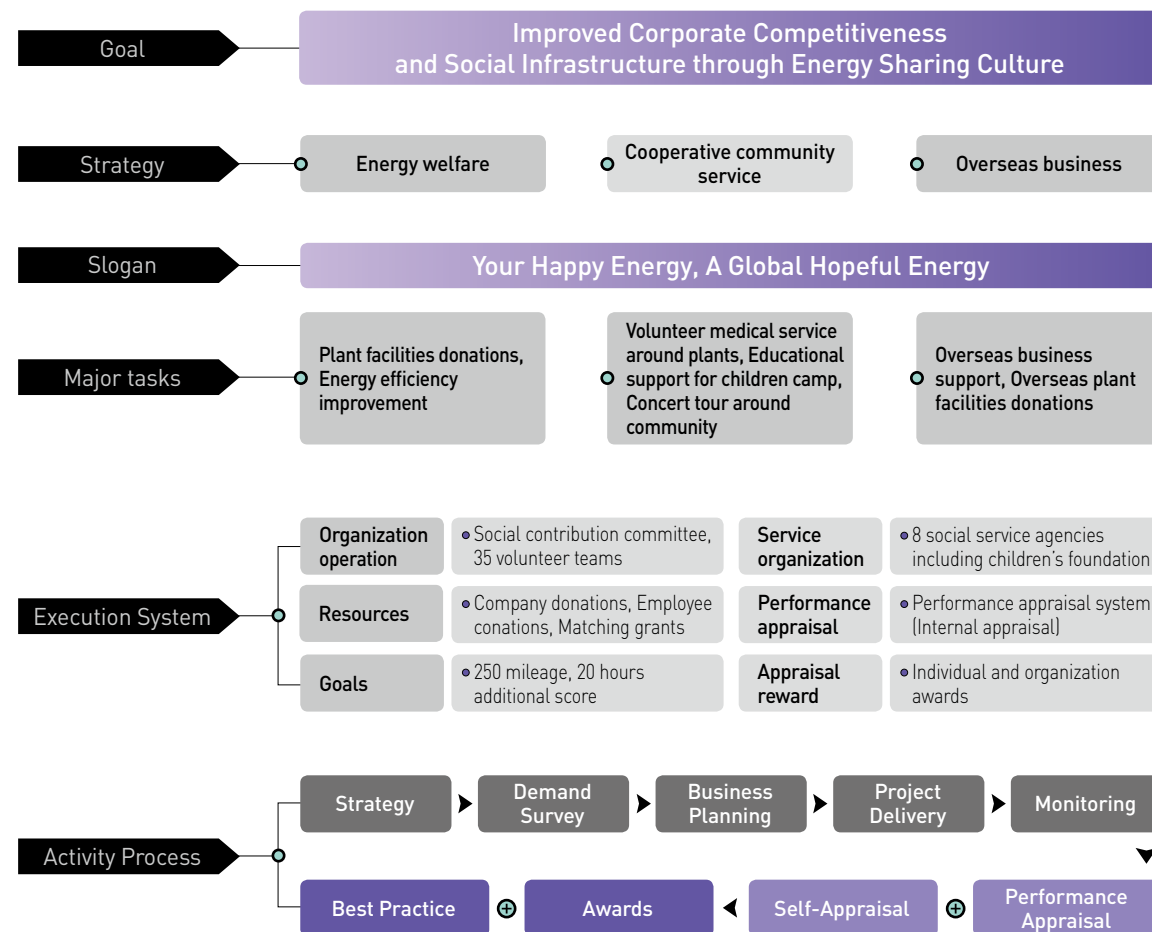


Social Contribution

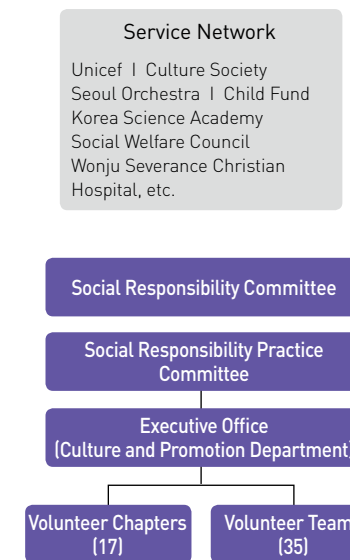
KOSPO proclaimed social contributions in its corporate mission with an intention to fulfill social responsibilities as a corporate citizen. Under the slogan of 'Happy energy is a global hopeful energy', we launched a KOSPO Community Service Group to conduct Love 4 Campaign (neighborhood, culture, environment, farming & fishing communities) in an organized and systematic manner. Also, KOSPO has engaged in community service projects for income growth, public facility expansion, social welfare, business investment, and scholarship in accordance with Act on Assistance to Electric Power Plants-Neighboring Areas.

⊕ Social Contribution Mechanism

With the goal of Laying a Foundation for Corporate Social Responsibility via Sharing Culture, KOSPO has engaged in 'LOVE 4 Campaign' and 'Pro Bono Campaign'. With the operating guidelines for community service group in place, we have established a system to manage social contribution records of 'KOSPO Share-Light Service Group'. Also we set up a system for community service target, matching grants, community service index, linkage of community service with HR management so as to promote social contribution activities.



Social Contribution Organization



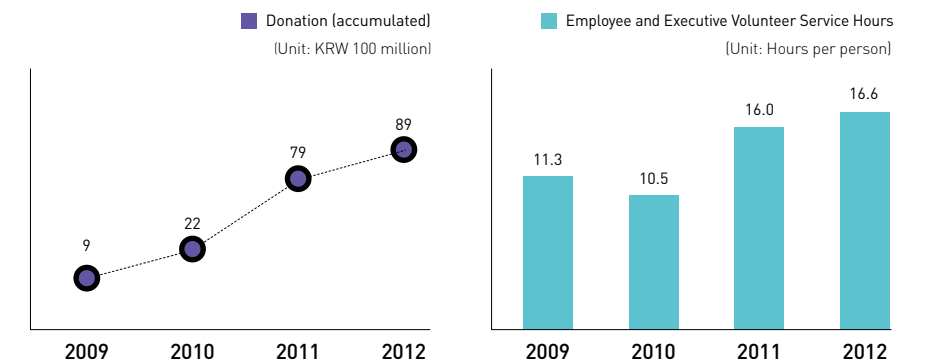
Community Activities by KOSPO Share-Light Service Group



Community Activities in Tae Baek Wind Power Plant Area

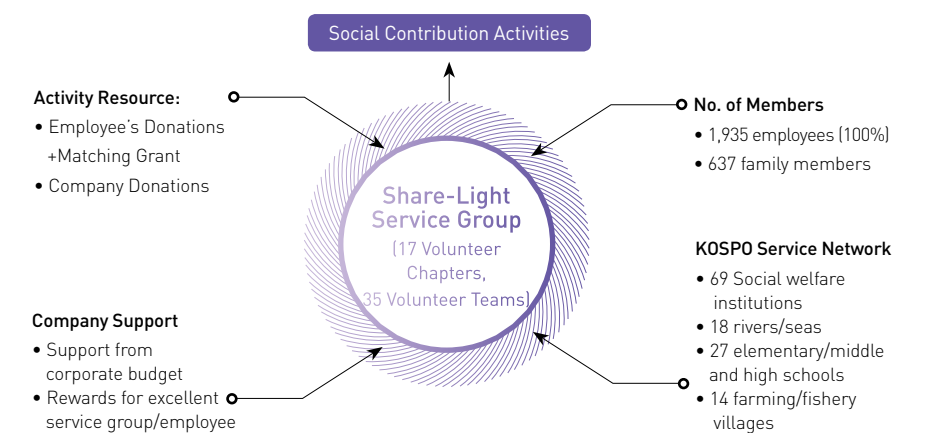
⊕ Social Contribution Activities

KOSPO Community Service Group has led social contribution activities which are based on a sisterhood tie between one sub-group and one public institution. As of 2013, 17 service units and 35 service teams exist, out of which 69 sisterhood ties are established in seven chapters of the service group. We introduce the community service mileage system to expand voluntary community service and improve the effectiveness of community service.



KOSPO Share-Light Service Group

KOSPO Community Service Group was launched in 2004 to fulfill social responsibilities as a corporate citizen and become a respected and sustainable company. To reflect global trends, the name was changed to 'KOSPO Share-Light Service Group'. Under the slogan of 'your happy energy, a global hopeful energy', KOSPO Share-Light Service Group practices various activities to promote 'communication with local communities and energy well-being' in its construction businesses. The activities are performed company-wide and by all of KOSPO's associated parties. The activity programs include 'KOSPO Global Sharing Day', service together with family members, cross-borderservices, welfare mileage donations, service programs for new employees and promotions.





Love 4 Campaign

In an effort to show love for our neighborhood, culture, environment, and farming and fishing communities, we have operated a 'Love 4 campaign'. The results of the campaign has generated 7,468 volunteer service workers, 32,067 hours of service time, and the use of KRW 1.9 million fund. The campaign results have seen growth five to six percent every year. Recently, the donation of talent and energy well-being has been the focus of the activities. The fund is composed of employee donations of KRW 237 million, company support of KRW 237 million through matching grants, and a company donation of KRW 541 million.

- **Fence of Love** : Provide study rooms and cooling/heating facilities for the children from low-income families
- **Energy Welfare**: Project for replacement of obsolete electric facilities
- **CO₂ Pepero** : Donate fund raised through energy saving by KOSPO employees to the low-income families

Love for Neighbor

Sharing and Volunteering Activities for the Hope to a Neglected Class of People

Love for Environment

Environmental Campaign for Creation of Pleasant Environment

- Cleanup of one river/sea/mountain for one location
- Support for environmental improvement including provision of electricity facilities to marginalized class or child center

Love for Rural Villages

Vitalize Farming & Fishing Villages which are Suffering from Aging Societies and Economic Difficulties through FTA

- Company-wide drive for one chapter one village sisterhood tie
- Sharing of goods and services for farming & fishing villages

Love for Culture

Set a Venue for Watching & Participation to Socially Marginalized Class

- Support for local festivals
- Protect local cultural assets through 1 company 1 cultural asset caring project



●● Share Energy Together Concert with Seoul Orchestra, a Social Enterprise

Contributions to Community Development

KOSPO has improved various community support projects regarding human resource development, job creation, income growth, and social welfare in order to help local communities develop sustainably and become a respected company that grows together with local communities.

Development of Local Talents

KOSPO provided teaching aids and materials to schools around power plants. With financial support of lunch and tuition fee and operation of after-school library, we helped local youth to grow up healthy and brightly. We also conducted a project to support schools in local communities. Especially, using the special fund for electric power plants-neighboring Areas, we invested KRW 139 billion into Wondeok Middle School and Wondeok High School near the Samcheok Green Power Site. KOSPO established a scholarship foundation, built a dormitory, provided students with subscription to an e-learning courses and self-study materials, and gave taxi coupons for students returning home late. KOSPO also provided intense study courses for students depending on their levels. With these commitments, KOSPO plans to foster many local prestigious schools.

Job Creation

KOSPO and its contractors has given special treatment to local applicants in the recruiting process. For example, in order to vitalize the local economy of Samcheok, a candidate location for new power plant, we opened a Samcheok Green Power Technical School under Korea Polytechnic III, which is the vocational training center in Samcheok city. The three-month course on welding and electricity has been offered to 30 trainees per term which had 5th classes of 306 trainees by 2011. As a result, 73 trainees acquired the certificate of skilled worker, and currently in 2012 53 trainees are employed.

Use of Plant Resource for Income Growth

KOSPO provides hot wastewater from power plants to warm or cool greenhouse farming facilities, which allow local residents to grow high value added garden products and earn more income. Currently, we are providing warm and cool energy to mango and mandarin greenhouse farming facilities near Namjeju thermal power site. We plan to expand this project across the nation.



●● Social Responsibility for Shared Growth Award



●● Community Activities by KOSPO Share-Light Service Group



APPENDIX

Major Management Indicators

Power Generation Amount

Unit: GWh

Classification	2009	2010	2011	2012
Electricity Sales	52,525	57,693	58,085	61,079
Renewable Energy Generation	75	86	101	97
Renewable Energy Generation Ratio	0.14%	0.14%	0.17%	0.15%

Power Generation Amount by Plant

Unit: GWh

Classification	2009	2010	2011	2012
Hadong	31,666 (39.32)	33,661 (39.45)	33,550 (39.11)	33,612 (39.12)
Shinincheon	10,225 (48.33)	9,904 (48.34)	8,730 (46.94)	11,687 (48.67)
Busan	9,464 (49.95)	12,730 (50.32)	11,797 (49.97)	11,417 (50.14)
Youngnam	912 (35.85)	709 (34.46)	512 (34.51)	1,187 (34.11)
Namjeju (Including Hanlim)	1,450 (34.60)	1,417 (34.38)	1,434 (37.00)	1,481 (36.85)
Yeongwol	-	985 (47.38)	4,209 (49.05)	3,912 (48.76)

※ Parenthesis is power efficiency.

Plant Operation Rate in 2012

Unit: %

Plant	Hadong	Shinincheon	Busan	Youngnam	Namjeju*	Yeongwol
Operation Rate	94.9	91.6	83.0	88.6	99.6	88.7

* Including Hanlim

Financial Performance

Unit: KRW 100 million

Classification		2009	2010	2011	2012
Sales		45,567	51,692	59,107	69,551
Operation Profit		3,084	2,711	1,641	1,949
Net Income		1,771	2,068	673	1,034
Labor Productivity	KRW 100M/ person	5.4	5.3	3.0	5.1
	GWh/ person	27.9	31.7	32.3	32.7

※ Sales: mixed utilization ratio increased due to demand increase and breakdown of base generator (nuclear power)

※ Operating profit: operating profit improved due to sales increase from the previous year:

※ Net income increased due to sales increase from the previous year

Financial Soundness Indicators

Stability Indicator

[Unit: %]

Classification	2009	2010	2011	2012
Liquidity Ratio	94.0	87.7	124.5*	75.6
Debt Ratio	86.5	76.8	79.9	89.2
Total borrowings to total assets	33.1	31.4	28.4	28.8

※ Current liability increased due to reclassification of bonds payable in foreign currency as current liability in 2011

Profitability Indicator

[Unit: %, KRW]

Classification	2009	2010	2011	2012
Net income to sales ratio	3.9	3.6	1.1	1.5
Net income to total asset ratio	3.8	3.9	1.1	1.6
Return on owner’s equity	7.3	7.3	2.0	3.0
Earnings per share	3,835	4,073	1,471	2,259

Growth Indicator

[Unit: %]

Classification	2009	2010	2011	2012
Net sales growth rate	-0.6	12.4	14.3	17.7
Net profit growth rate	Turnaround	6.2	-67.5	53.6
Total asset growth rate	-0.1	7.1	1.3	6.6

Government Subsidy

[Unit: KRW 100 million]

Classification	2009	2010	2011	2012
Government Subsidy	1.7	0.3	5.8	15.2

Distribution of Economic Performance

[Unit: KRW 100 million]

Classification	2009	2010	2011	2012
Supplier - Purchase amount	3,946	6,059	3,146	9,774
Shareholder-Dividend	531	564	471	516
Local ommunities - Donation (accumulated)	9	22	79	89
Government - Tax (accumulated)	616	1,072	1,392	1,894
Salary	1,140	1,234	1,286	1,530
Welfare Benefit	155	158	167	171
Allowance for retirement	98	174	154	135

※ Local Communities: Including KRW 5 billion of Live Together Fund in 2011



Environmental Achievement

Environmental Accounting

[Unit: KRW 100 mil.]

Classification	2009	2010	2011	2012
Environmental Facility Operating cost	548	576	533	572
Environmental R&D	3.1	11	36	81

Energy

[Unit: TJ]

Classification	2009	2010	2011	2012
Energy consumption in total	482,866	523,124	535,746	535,445
Direct Energy	463,909	503,210	516,372	534,531
- Bituminous Coal	296,366	307,153	308,757	309,192
- Heavy Oil	22,508	20,552	18,750	25,692
- Light Oil	687	686	5,991	1,506
- LNG	144,348	174,820	182,873	197,329
- Wood Pellet	-	-	-	812
Indirect Energy	18,957	19,914	19,374	914

※ Electricity: Excluded from indirect energy source under related local laws in 2012.

GHG

[Unit: tCO₂-eq]

Classification	2009	2010	2011	2012
Emissions in total	35,555,236	37,530,497	38,562,950	39,517,409
- Direct emissions	35,515,484	37,489,900	38,519,447	39,473,007
- Indirect emissions	39,752	40,597	43,503	44,402
Basic Unit (tCO ₂ -eq/GWh)	659.04	629.43	639.17	623.37
Reductions	24,500	23,783	35,045	6,999

※ GHG emissions is calculated in accordance with applicable Korea laws and regulations.

※ Reduction Amount: HanKyung 2 CDM(2008-2011), Namjeju supercharger (2009) & HanKyung 1 (2011) & Namjeju steam power unit (2012) KCER

Wastes

(Unit: ton)

Classification	2009	2010	2011	2012
Wastes generated in total	5,341	23,415	9,201	7,020
- Recycling	1,893	9,446	3,377	1,261
- Incineration	0	0	0	0
- Landfill	189	452	622	514
- Others	3,259	13,517	5,202	5,245
General Wastes	2,922	3,815	3,494	5,902
Designated Wastes	1,322	1,075	803	541
Construction Wastes	1,097	18,525	4,904	577
Basic Unit (ton/GWh)	0.101	0.401	0.153	0.111

Coal Ash

(Unit: 1,000 ton)

Classification	2009	2010	2011	2012
Generation	1,209	1,426	1,315	1,330
Recycling Amount	617	727	1,053	1,151
Recycling Rate	51%	51%	80%	87%

De-Sulfurized Gypsum

(Unit: 1,000 ton)

Classification	2009	2010	2011	2012
Generation	370	424	457	446
Recycling Amount	366	422	455	445
Recycling Rate	99%	100%	100%	100%

Water

(Unit: m³)

Classification	2009	2010	2011	2012
Water use in total	5,865,371	5,687,657	9,562,790	9,567,407
- Underground water	450,188	411,747	442,427	403,609
- Industrial water	5,145,298	4,988,534	8,875,099	9,017,649
- Public water	269,885	287,376	245,264	146,149
Basic unit (m³/GWh)	111	97	159	151

※ Water use increase in 2011 is driven by full-scale operation of Yeongwol Combined Cycle Power Plant, where water use is relatively high due to a cooling tower.

※ Underground water is used on Jeju.



Wastewater

Classification	2009	2010	2011	2012
Wastewater Generation (m³)	1,280,233	1,535,488	1,420,346	1,155,794
Wastewater Discharge (m³)	6,939	7,855	5,141	3,252
Recycling Amount (m³)	1,011,595	1,140,126	1,118,231	1,149,310
Recycling Rate (%)	79	74	79	99
Wastewater Basic Unit (m³/GWh)	0.007	0.008	0.005	0.003
COD Emissions (ton)	1.81	2.21	2	0.91
COD Basic Unit (kg/GWh)	0.03	0.04	0.03	0.01
SS Emissions (ton)	0.91	1.01	0.9	0.51
SS Basic Unit (kg/GWh)	0.02	0.02	0.01	0.01

Rainwater catchment and wastewater recycle by plant

Plant	Rainwater Catchment (1,000m³/year)		Wastewater Recycling Amount (1,000m³/year)		Cost Saving (KRW 1 million/year)	
	2011	2012	2011	2012	2011	2012
Hadong	-	-	859	823	146	134
Shinincheon	7	1.3	40	30	57	34
Busan	25	52	129	108	195	270
Youngnam	12	9	49	106	21	40
Namjeju	-	-	18	131	6	50
Yeongwol	-	-	6	9	0.14	0.21
Total	44	62.3	1,101	1,207	425.14	528.21

※ Wastewater recycling is a sum of reuse from water (excluding rainwater) and de-SOx wastewater.

※ Cost saving is a sum of savings from rainwater and wastewater.

Air Pollutants

Classification	2009	2010	2011	2012
Dust (ton)	440	431	464	584
Dust Basic Unit (kg/GWh)	0.008	0.007	0.008	0.009
NOx (ton)	15,006	15,784	15,354	16,689
NOx Basic Unit (kg/GWh)	0.284	0.273	0.255	0.264
SOx emissions (ton)	7,651	7,826	8,114	9,755
SOx Basic Unit (kg/GWh)	0.145	0.134	0.135	0.154

Air pollutants emissions by plant

Dust

Plant		Emission Standard (ppm)	Emission Concentration (ppm)				Emissions in Basic Unit (g/kWh)				Prevention Facilities
			2009	2010	2011	2012	2009	2010	2011	2012	
Hadong	#1~6/#7,8	30/20	5	5	5	5	0.013	0.012	0.013	0.016	Electric Dust Collector
Youngnam	#1,2	30	3	2	4	4	0.008	0.008	0.013	0.013	Electric Dust Collector
Namjeju	Steam Power #3,4	20	3	3	3	3	0.009	0.009	0.011	0.011	Electric Dust Collector
	Internal Combustion	40	7	7	6	7	0.040	0.060	0.051	0.035	Electric Dust Collector
Hanlim	#1,2	40	5	3	8	9	0.019	0.019	0.020	0.019	Heating Oil

NOx

Plant		Emission Standard (ppm)	Emission Concentration (ppm)				Emissions in Basic Unit (g/kWh)				Prevention Facilities
			2009	2010	2011	2012	2009	2010	2011	2012	
Hadong	#1~6/#7,8	150/80	62	61	50	49	0.344	0.327	0.292	0.329	SCR
Shinincheon	#9~16	100	14	15	15	12	0.138	0.174	0.128	0.109	Water Injection
Busan	#1~8	100	9	9	10	10	0.058	0.081	0.081	0.080	SNCR
Yeongwol	#1~3	50	-	19	16	16	-	0.034	0.211	0.253	SNCR
Youngnam	#1	250	159	170	176	176	1.037	1.091	1.233	1.157	LNA
	#2	150	132	125	119	119	0.889	0.893	0.879	0.825	SCR
Namjeju	Steam Power #3,4	70	35	34	48	52	0.212	0.215	0.322	0.338	SCR
	Internal Combustion	600	427	428	472	412	5.635	8.594	9.062	6.741	SCR
Hanlim	#1,2	400	233	185	187	196	4.038	4.049	4.097	4.042	Water Injection

SOx

Plant		Emission Standard (ppm)	Emission Concentration (ppm)				Emissions in Basic Unit (g/kWh)				Prevention Facilities
			2009	2010	2011	2012	2009	2010	2011	2012	
Hadong	#1~6/#7,8	100/80	31	31	26	29	0.222	0.218	0.227	0.274	De-SOx Facility
Shinincheon	#1,2	150	28	22	19	19	0.254	0.204	0.195	0.195	De-SOx Facility
Busan	Steam Power #3,4	70	20	19	19	18	0.166	0.167	0.182	0.171	De-SOx Facility
Yeongwol	Internal Combustion	270	133	148	154	158	1.156	1.432	1.452	1.279	Low-sulfur Heavy Oil
Hanlim	#1,2	180	11	10	10	11	0.093	0.084	0.095	0.094	Heating Oil

Compliance to Environmental Regulations & Accident Record

Since 2009 to date, KOSPO has not leaked toxic chemicals or violated environment-related laws and regulations nor been fined.



Employment

Employees by Location & Offices

[Unit: Headcount]

Classification		2009	2010	2011	2012
Domestic	Headquarter	235	224	292	306
	Plant	1,659	1,614	1,553	1,609
Overseas		34	34	19	20
Total		1,928	1,872	1,864	1,935

※ Overseas (Jordan, Indonesia, Canada officesDispatch)

Employees by Age

[Unit: Headcount]

Classification		2009	2010	2011	2012
Above 50	Male	405	401	365	356
	Female	9	10	7	8
40~49	Male	642	693	748	804
	Female	19	22	22	21
30~39	Male	623	562	490	459
	Female	60	69	87	93
Below 30	Male	120	77	95	134
	Female	50	38	50	60

New Employment and Retirement

[Unit: Headcount]

Classification		2009	2010	2011	2012
Retirement		54	139	51	58
New Employment	Male	39	0	85	103
	Female	4	0	33	23
Turnover Ratio		0.05%	0.21%	0.27%	0.15%

※ Retirement: Include 2010 Korea Hydro Power Plant and Nuclear Power Corp.

Memberships

- 01

The Institute of Internal Auditors
- 02

BEST Forum
- 03

Korea Society of Innovation
- 04

Strategy Managers' Meeting
- 05

Korea Forum for Progress
- 06

The Korea Management Association
- 07

Korea Employers Federation
- 08

Korea International Trade Association
- 09

Korean Resource Economics Association
- 10

World Petroleum Congress,

Korea National Committee
- 11

Korea Gas Union
- 12

Korea Power Exchange
- 13

Korea Society of Geothermal Energy Engineers
- 14

Small Business Innovation Forum
- 15

Edison Electric Institute
- 16

Korea Plant Industries Association
- 17

The Korean Society of Mechanical Engineers
- 18

The Korean Institute of Electrical Engineers
- 19

Korea Energy Foundation
- 20

Korea Electrical Engineering &

Science Research Institute
- 21

Korea Electric Power Industry Code
- 22

Korea Project Management Association
- 23

The Korean Society for New and

Renewable Energy
- 24

Korea New & Renewable Energy
- 25

Offshore Wind Farm Forum
- 26

World Wind Energy Association (WWEA)
- 27

Korea Wind Energy Association
- 28

Korean Standards Association
- 29

CEO Breakfast Meeting (KSA)
- 30

Korean Academics Society of

Business Administration



Awards

2009

Award	Date	Presenter	Remarks
Grand Prize for Green Safety Management for 4 consecutive years	May 28	The Korea Economic Daily, Open Management Research	Hadong Thermal Power Site
Presidential Award in the National Quality Management Contest	November 25	Korean Standards Association	Shinincheon Combined Cycle Power Site

2010

Award	Date	Presenter	Remarks
Grand Prize for Green Safety Management for 5 consecutive years	April 2	The Korea Economic Daily	Hadong Thermal Power Site
15th Merit for Environmental Conservation	June 5	Jeju Special Self-Governing Province	Namjeju Thermal Power Plant
Grand Prize in the 9th Global Green Management Excellence Award	October 5	The Korea Management Association	KOSPO

2011

Award	Date	Presenter	Remarks
Grand Prizefor Korea New Technology	June 16	Korea Standards Association	KOSPO
Grand Prize for Green Management for 2 consecutive years	October 27	Korea Management Association	
Honored with Korea 100 Best Environment Company	November 10	GWP Korea	

2012

Award	Date	Presenter	Remarks
Grand Prize inCitizen's Voice	February 29	Anti-Corruption and Civil Rights Commission	KOSPO
Honored with CEO Grand Award	May 25	Korean Academics Society of Business Administration	
Presidential Citation for New Technology Commercialization Promotion Energy Company	November 14	The Ministry of Knowledge Economy	
Grand Award for Environment & Energy 2012	November 19	Energy EngineeringSociety	
Grand Awardfor Korea Green Construction	November 19	Presidential Commission on Architecture Policy	
Minister Citation for Regional Technical Talent Development	November 23	The Ministry of Knowledge Economy	
Grand Award for Korea Idea Management 2012	December 10	Suggestion System Associations	

Third Party’s Assurance Report

To the Readers of Korea Southern Power Co., Ltd. 2012 Sustainability Report:

Foreword

The Korea Management Association Registration and Assessments (KMAR) has been requested by Korea Southern Power Co., Ltd. (KOSPO) to verify the contents of its 2012 Sustainability Report (the Report). KOSPO is responsible for the collection and presentation of information included in the Report. Our responsibility is to carry out assurance engagement on specific information in the assurance scope stipulated below.

Our independence

With the exception of providing third party assurance services, KMAR is not involved in any other KOSPO business operations that are aimed at making profit in order to avoid any conflicts of interest and to maintain independence.

Assurance scope

KOSPO describes its efforts and achievements of the sustainability activities in the Report. The assurance process is designed to provide readers with the following information:

■ Assurance of the economic section:

Reviews whether the financial performance data has been extracted appropriately from KOSPO’s audit reports for 2011~2012 financial statements and public notification data as defined in the performance and conclusion sections of the Report

■ Assurance of the environmental and social section:

Reviews whether the environmental and social information included in the Report is presented appropriately.

“Appropriately presented” means that the actual data and original information are appropriately reflected in the Report with consistency and reliability. For the economic section, we based our evidence-gathering procedures on reasonable assurance. It is a higher level of assurance than that of the limited assurance in terms of characteristics and the extent of performed tasks.

Assurance standards

KMAR performed a Type 2, moderate level of assurance using AA1000AS (2008) as an assurance standard. We also used the International Auditing and Assurance Standards Board-issued “International Standard on Assurance Engagements (ISAE 3000): Assurance Engagements other than Audits or Reviews of Historical Financial Information” as additional guidelines.

Assurance process

In order to verify whether the contents of the Report are within an agreed scope of assurance and also verify the reported data and the internal processes for report preparation, KMAR’s audit team visited the KOSPO’s headquarter, and carried out an assurance engagement as follows:

- Reviewed systems and processes used in producing data
- Assessed internal documents and materials
- Interviewed people in charge of disclosed activities and performances
- Reviewed the GRI G3 application level which was used as a reporting framework

Conclusion

Based on the results we have obtained from material reviews, relevant department visits, and interviews, we had several discussions with KOSPO on the revision of the Report. We reviewed the Report’s final version in order to confirm that our recommendations for improvement and our revisions have been reflected. When reviewing the results of the assurance, the assurance team did not find any inappropriate contents related to the compliance with the principle in the Report.



■ Inclusivity

Inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.

- KOSPO is developing and maintaining stakeholder communication channels in various forms and levels in order to make a commitment to be responsible for the stakeholders. The assurance team did not find any critical stakeholder group left out during this procedure.

■ Materiality

Materiality is determining the relevance and significance of an issue to an organization and its stakeholders. A material issue is an issue that will influence the decisions, actions, and performance of an organization or its stakeholders.

- KOSPO is determining the materiality of issues found out through stakeholder communication channels through its own materiality evaluation process, and the assurance team did not find any critical issues left out in this process.

■ Responsiveness

Responsiveness is an organization’s response to stakeholder issues that affect its sustainability performance and is realized through decisions, actions, and performance, as well as communication with stakeholders.

- The assurance team did not find any evidence that KOSPO’s counter measures to critical stakeholder issues were inappropriately recorded in the Report.

The assurance result of the reliability of sustainability performance information is as follows:

■ Economic performance

We compared the Report with KOSPO’s 2011~2012 Financial Statements and found that the financial data presented in the Report has been appropriately derived from 2011 ~2012 Financial Statements.

■ Environmental and social performance

We observed that the information found in the environmental and social sections has been appropriately presented. We did not discover any significant errors.

In addition, the assurance team checked that the KOSPO complied with the GRI G3 in preparing the Report, and that the Report fulfills the requirements of GRI application level ‘A+’.

Recommendation for improvement

We hope KOSPO’s publication of the Report is actively used as a communication tool with stakeholders and recommend the following for improvements.

■ It is recommended that KOSPO recognize its macroeconomic and social responsibilities in more concrete way. This report should put more focus on strategic decisions KOSPO makes in terms of corporate governance and in-depth explanation on major management activity changes that are in line with national policy change, rather than management information including revenue and profit in the local power generation industry.

■ With respect to renewable energy development in relation to counter activities on climate change, balanced information should be incorporated in this report including concrete outcome from the energy development efforts and different perspectives as well as positive prospect on major challenges and limitations.

■ We hope that in a way to review the performance of sustainable management through this report, KOSPO shall explicitly include sustainability management indicator into major KOSPO KPI’s as well as in this report. Through this effort, we believe that KOSPO shall elevate its sustainable management capabilities to a higher level

March 25, 2013

GRI (G3) Index

● Fully ◐ Partially ○ Not reported

I. Profile Disclosure		Reporting Level	Location of Disclosure / Direct Answer
1. Strategy and Analysis			
1.1	Statement from the most senior decision-maker of the organization	●	4-5
1.2	Description of key impacts, risks, and opportunities	●	16, 23
2. Organizational Profile			
2.1	Name of the organization	●	8
2.2	Primary brands, products, and/or services	●	8
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	●	8, 82-83
2.4	Location of organization's headquarters	●	8, 82-83
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	●	About This Report, 8
2.6	Nature of ownership and legal form	●	8
2.7	Markets served	●	8
2.8	Scale of the reporting organization	●	8
2.9	Significant changes during the reporting period regarding size, structure, or ownership	●	8
2.10	Awards received in the reporting period	●	71
3. Report Parameters			
3.1	Reporting period	●	About This Report
3.2	Date of most recent previous report	●	About This Report
3.3	Reporting cycle	●	About This Report
3.4	Contact point for questions regarding the report or its contents	●	About This Report
3.5	Process for defining report content	●	12-13
3.6	Boundary of the report	●	About This Report
3.7	Specific limitations on the scope or boundary of the report	●	About This Report
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities	●	About This Report
3.9	Data measurement techniques and the bases of calculations	●	About This Report
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	●	About This Report
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	●	About This Report
3.12	Table identifying the location of the Standard Disclosures in the report	●	74-78
3.13	Policy and current practice with regard to seeking external assurance for the report	●	About This Report
4. Governance, Commitments, and Engagement			
4.1	Governance structure of the organization	●	9
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	●	9
4.3	The number of members of the highest governance body that are independent and/or non-executive members	●	9
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	●	10, 53
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives, and the organization's performance	●	10
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	●	9-10
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics	●	9-10



● Fully ◐ Partially ○ Not reported

I. Profile Disclosure		Reporting Level	Location of Disclosure / Direct Answer
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	●	17-19, 21-22, 31, 48, 54
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	●	9-10
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	●	9-10
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	●	21-23, 31
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	●	48, 70, 81
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations	●	70
4.14	List of stakeholder groups engaged by the organization	●	11
4.15	Basis for identification and selection of stakeholders with whom to engage	●	11
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	●	11-13
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	●	11-13

II. Disclosures on Management Approach (DMAs)		Reporting Level	Location of Disclosure / Direct Answer
DMA EC	Disclosure on Management Approach EC	●	16-19, 23, 27, 55, 58
DMA EN	Disclosure on Management Approach EN	●	30-45
DMA LA	Disclosure on Management Approach LA	●	48-55
DMA HR	Disclosure on Management Approach HR	●	48-49
DMA SO	Disclosure on Management Approach SO	●	21-23, 30-32, 43-45, 50-51, 58
DMA PR	Disclosure on Management Approach PR	●	23, 34

III. Performance Indicators		Reporting Level	Location of Disclosure / Direct Answer
Economic			
EC1	Direct economic value generated and distributed	●	26-27, 63-64
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	●	32
EC3	Coverage of the organization's defined benefit plan obligations	●	64
EC4	Significant financial assistance received from government	●	64
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation	○	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	●	27, 55, 64
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	●	Korea is regarded as one region and we have no policy regarding overseas recruitment
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	●	27, 59-61
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	●	55-57, 59-61
Environmental			
EN1	Materials used by weight or volume	○	This indicator is not material because materials used for electricity generation are very small.
EN2	Percentage of materials used that are recycled input materials	●	Recycled material is not used.
EN3	Direct energy consumption by primary energy source	●	65
EN4	Indirect energy consumption by primary source	◐	65, Data by primary source is not material because we are supplied with indirect energy from KEPCO through nationwide electricity grid.
EN5	Energy saved due to conservation and efficiency improvements	●	33

● Fully ◐ Partially ○ Not reported

III. Performance Indicators		Reporting Level	Location of Disclosure / Direct Answer
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives	◐	33, 37
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	◐	33
EN8	Total water withdrawal by source	●	66
EN9	Water sources significantly affected by withdrawal of water	●	66
EN10	Percentage and total volume of water recycled and reused	●	66
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	●	43-45, 82-83
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	●	43-45
EN13	Habitats protected or restored	●	44-45
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	●	43-45
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	◐	44-45
EN16	Total direct and indirect greenhouse gas emissions by weight	●	65
EN17	Other relevant indirect greenhouse gas emissions by weight	○	This indicator is not material because such GHG emissions are very small.
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	●	65
EN19	Emissions of ozone-depleting substances by weight	○	This indicator is not material because emissions of ozone-depleting substances are very small.
EN20	NOx, SOx, and other significant air emissions by type and weight	●	67-68
EN21	Total water discharge by quality and destination	●	66
EN22	Total weight of waste by type and disposal method	●	65
EN23	Total number and volume of significant spills	●	No significant spills
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	○	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	●	39-40, 82-83
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	●	30-45, 65-68
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	○	This indicator is not applicable because KOSPO generates electricity.
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	●	No cases of fines or sanctions on legal violations
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	○	
EN30	Total environmental protection expenditures and investments by type	●	65
Labor Practices and Decent Work			
LA1	Total workforce by employment type, employment contract, and region	◐	69, Number of employees by employment type and contract is not material because we rarely employ part-time or temporary workers.
LA2	Total number and rate of employee turnover by age group, gender, and region	◐	69, Data by age group is not material because most of employees retire under the age limit.
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	●	50-52
LA4	Percentage of employees covered by collective bargaining agreements	●	48
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	●	48
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	●	54
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region	●	54
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	●	54-55
LA9	Health and safety topics covered in formal agreements with trade unions	●	54



● Fully ◐ Partially ○ Not reported

III. Performance Indicators		Reporting Level	Location of Disclosure / Direct Answer
LA10	Average hours of training per year per employee by employee category	◐	51-52, Data by employee category is not available and will be reported in 2015.
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	●	51-52
LA12	Percentage of employees receiving regular performance and career development reviews	●	49-50
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	●	9, 69
LA14	Ratio of basic salary of men to women by employee category.	●	48
Human Rights			
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	●	48-49
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	●	48-49
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	●	48-49
HR4	Total number of incidents of discrimination and actions taken	●	48-49
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	●	48-49
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	●	48-49
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor	●	48-49
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	○	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	○	
Society			
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	●	44
S02	Percentage and total number of business units analyzed for risks related to corruption	●	21-22
S03	Percentage of employees trained in organization's anti-corruption policies and procedures	●	21-22
S04	Actions taken in response to incidents of corruption	●	21-22
S05	Public policy positions and participation in public policy development and lobbying	●	32, 51
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	●	No case of such contributions
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	●	No such violations
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	●	No such violations
Product Responsibility			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	○	This indicator is not material because KOSPO generates electricity.
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	●	No such violations
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	●	34
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	●	No such violations
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	○	
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	○	This indicator is not material because KOSPO, as a public company, rarely conducts marketing communications.
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	●	No such violations
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	○	This indicator is not applicable because KOSPO generates electricity.
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	●	No such violations

● Fully ◐ Partially ○ Not reported

Disclosure		Reporting Level	Location of Disclosure / Direct Answer
EU1	Installed capacity, broken down by primary energy source and by regulatory regime	●	82-83
EU2	Net energy output broken down by primary energy source and by regulatory regime	●	63
EU3	Number of residential, industrial, institutional and commercial customer accounts	○	Refer to the comment below
EU4	Length of above and underground transmission and distribution lines by regulatory regime	○	Refer to the comment below
EU5	Allocation of CO ₂ emissions allowances or equivalent, broken down by carbon trading framework	●	32-37
EU6	Management approach to ensure short and long-term electricity availability and reliability	●	23
EU7	Demand-side management programs including residential, commercial, institutional and industrial programs	○	Refer to the comment below
EU8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	●	34-37, 65
EU9	Provisions for decommissioning of nuclear power sites	○	This indicator is not applicable because KOSPO doesn't operate any nuclear power plant
EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	○	Refer to the comment below
EU11	Average generation efficiency of thermal plants by energy source and regulatory regime	●	63
EU12	Transmission and distribution losses as a percentage of total energy	○	Refer to the comment below
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	●	44-45
EU14	Programs and processes to ensure the availability of a skilled workforce	●	51-52
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	○	Data is not available and will be reported in 2015
EU16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors	●	54
EU17	Days worked by contractor and subcontractor employees involved in construction, operation and maintenance activities	○	Data is not available and will be reported in 2015
EU18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	●	100%
EU19	Stakeholder participation in the decision making process related to energy planning and infrastructure development	○	Refer to the comment below
EU20	Approach to managing the impacts of displacement	○	Refer to the comment below
EU21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	●	23
EU22	Number of people physically or economically displaced and compensation, broken down by type of project	○	Refer to the comment below
EU23	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services	○	Refer to the comment below
EU24	Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services	○	Refer to the comment below
EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	●	No such cases
EU26	Percentage of population unserved in licensed distribution or service areas	○	Refer to the comment below
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	○	Refer to the comment below
EU28	Power outage frequency	○	Refer to the comment below
EU29	Average power outage duration	○	Refer to the comment below
EU30	Average plant availability factor by energy source and by regulatory regime	●	63

※ EU3, EU4, EU7, EU10, EU12, EU19, EU20, EU22, EU23, EU24, EU26, EU27, EU28, EU29:
Above indicators are not applicable based on followings. First, electricity supply is managed through nationwide electricity grid. Second, KEPCO, KOSPO's mother company, manages electricity users. Lastly, electricity companies are subject to the national policies on infrastructure related to power generation industry.



ISO 26000

Issues	Checklist	Relevance	Application / Results
Organizational Governance			
1) Decision-Making Process and Structure	Develop strategies, objectives, and targets that reflect its commitment to social responsibility	○	Mid- to long-term management stratgies
	Put in place processes, systems, structures, or other mechanisms that make it possible to apply the principles and practices of social responsibility	○	Consultation channels with shareholders, Support Project Review Committee
Human Rights			
2) Due Diligence	organizations have a responsibility to exercise due diligence to identify, prevent and address actual or potential human rights impacts resulting from their activities or the activities of those with which they have relationships	○	Employment Rules
3) Human Rights Risk Situations	Organizations should take particular care when dealing with situations characterized above. These situations may require an enhanced process of due diligence to ensure respect for human rights	○	Disaster response manuasl and social contributions
4) Avoidance of Complicity	Verify that its security arrangements respect human rights and are consistent with international norms and standards for law enforcement	○	p.48-49
5) Resolving Grievances	Establish, or otherwise ensure the availability of, remedy mechanisms for its own use and that of its stakeholders	○	p.48-49
6) Discrimination and Vulnerable Groups	Examine its own operations and the operations of other parties within its sphere of influence to determine whether direct or indirect discrimination is present	○	Regulations on dealing with grievances and Grieance Committee
7) Civil and Political Rights	Respect all individual civil and political rights	○	Article 5 of the Employment Rules
8) Economic, Social, and Cultural Rights	Assess the possible impacts of its decisions, activities, products and services, as well as new projects, on these rights and A socially responsible organization could also contribute to the fulfilment of such rights	○	Environmental impact assessment, Social contribution activities
9) Fundamental Principles and Rights at Work	Independently ensure that it addresses the following matters: freedom of association and collective bargaining, forced labour and child labour	○	Chapter 13 & 14 of the Collective Agre ement; Article 56 the Collective Agree ment; Article 58 the Collective Agreem ent & Article 5 of Employment Rules / Article 5 of the Collective Agreement
Labor			
10) Employment and Employment Relationships	Ensure equal opportunities for all workers and not discriminate either directly or indirectly in any labour practice	○	Article 58 of the Collective Agreement & Article 5 of the Employment Rules
	Not benefit from unfair, exploitative or abusive labour practices of its partners, suppliers or subcontractors.including home workers. An organization should make reasonable efforts to encourage organizations in its sphere of influence to follow responsible labour practices	○	Chapter 5 of the Collective Agreement
11) Conditions of Work and Social Protection	Provide decent conditions of work with regard to wages, hours of work, weekly rest, holidays, health and safety, maternity protection and ability to combine work with family responsibilities	○	Chapter 2 of the Employment Rules and Chapter 5 of the Collective Agreement
	Allow observance of national or religious traditions and customs	○	Remuneration regulations
12) Social Dialogue	Respect at all times the right of workers to form or join their own organizations to advance their interests or to bargain collectively	○	Articles 1 and 6 of the Collective Agreement
	Develop, implement and maintain an occupational health and safety policy	○	Health and Safety Management Regulations and Safety & Healty Management Policy
	Apply health and safety management rules from removal, replacement, and engineering control to management control, work procedure and individual safety facilities	○	KOSHA18001 certification, Health and Safety Management Policy, Quality circle to improve safety hazards and risks, Activities to improved vulnerable equipment
13) Health and Safety at Work	Understand and apply principles of health and safety management, including the hierarchy of controls: elimination, substitution, engineering controls, administrative controls, work procedures and personal protective equipment	○	Reflection into the basic plan on industrial safety and health, Special lecture on Safety Inspection Day, and conduct of statutory safety education
	Provide all workers at all stages of their work experience with access to skills development, training and apprenticeships, and opportunities for career advancement, on an equal and non-discriminatory basis	○	Education and Training Regulations
	Establish joint labour-management programmes that promote health and well-being	○	Induction training and OJT
The Environment			
15) Prevention of Pollution	Identify the aspects and impacts of its decisions and activities on the surrounding environment	○	Environmental impact assess ment for construction project
	mplement measures aimed at preventing pollution and waste, using the waste management hierarchy, and ensuring proper management of unavoidable pollution and waste	○	Operation of pollution prevention facilities
	Systematically identify and avoid the use of banned chemicals defined by national law or of unwanted chemicals listed in international conventions	○	Details on the use of chemicals
16) Sustainable Resource Use	Identify the sources of energy, water and other resources used, and measure, record and report on its significant uses of energy, water and other resources.	○	Conducted as a basic duty
	Use recycled materials and reuse water as much as possible.	○	Water recycling
	Promote sustainable procurement	○	Environment-friendly procurement

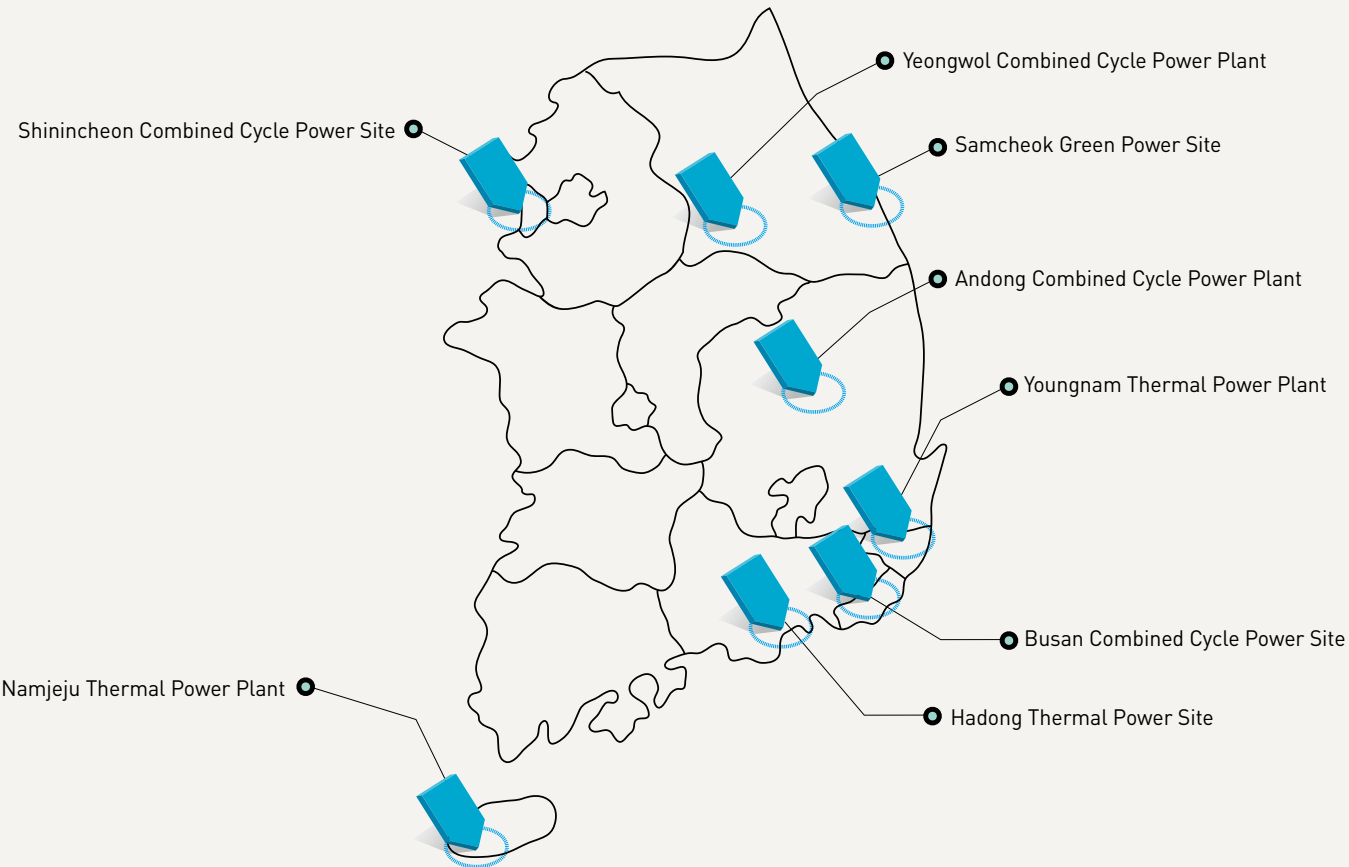
Issues	Checklist	Relevance	Application / Results
17 Climate Change Mitigation and Adaptation	Identify the sources of direct and indirect accumulated GHG emissions and define the boundaries (scope) of its responsibility	○	Annual survey of emissions (inventory) according to greenhouse gas management guidelines
	Measure, record and report on its significant GHG emissions, preferably using methods well defined in internationally agreed standards	○	Establishment and operation of greenhouse gas maangement guidelines (April 2008) according to ISO 140964- 1 and IPCC guidelines.
	Implement optimized measures to progressively reduce and minimize the direct and indirect GHG emissions within its control and encourage similar actions within its sphere of influence	○	Conduct of environmental impact assessment
18 Protection of the Environment, lodiversity and Restoration of Nnatural Habitats	Take measures to preserve any endemic, threatened or endangered species or habitat that may beadversely affected	○	Conduct of environmental impact assessment
Fair Operating Practices			
19 Anti-Corruption	Identify the risks of corruption and implement and maintain policies and practices that counter corruption and extortion	○	Payment of rewards and desciplinary measures based on the severity of violation
	Raise the awareness of its employees, representatives, contractors and suppliers about corruption and how to counter it	○	Year-round integrity education
20 Responsible Political Involvement	Train its employees and representatives and raise their awareness regarding responsible political involvement and contributions, and how to deal with conflicts of interest	N/A	
21 Fair Competition	Establish procedures and other safeguards to prevent engaging in or being complicit in anti-competitive behaviour and promote employee awareness of the importance of compliance with competition legislation and fair competition	○	Ethical management
22 Promoting Social Responsibility in the Value Chain	Consider providing support to SMOs, including awareness raising on issues of social responsibility and best practice and additional assistance (for example, technical, capacity building or other resources) to meet socially responsible objectives	○	Supplier support system
23 Respect for property rights	Not engage in activities that violate property rights, including misuse of a dominant position, counterfeiting and piracy, and pay fair compensation for property that it acquires or uses	○	Contract provisions
Consumer Issues			
24 Fair marketing, Factual and Unbiased Information and Fair Contractual practices	Consent to sharing relevant information in a transparent manner which allows for easy access and comparisons as the basis for an informed choice by the consumer	N/A	
25 Protecting Consumers`	Assess the adequacy of health and safety laws, regulations, standards and other specifications to address all health and safety aspects	N/A	
	Identifying the likely user group(s), the intended use and the reasonably foreseeable misuse of the process, product or service, as well as hazards arising in all the stages and conditions of use of the product or service and, in some cases, provide specially tailored products and services for vulnerable groups	N/A	
26 Sustainable Consumption	Promote effective education empowering consumers to understand the impacts of their choices of products and services on their well being and on the environment	○	Energy saving PR
27 Consumer Service, Support, and Complaint	Review complaints and improve practices in response to complaints	N/A	
28 Consumer Data Protection and Privacy	Limit the collection of personal data to information that is either essential for the provision of products and services or provided with the informed and voluntary consent of the consumer	N/A	
29 Access to Essential Services	Not disconnect essential services for non-payment without providing the consumer or group of consumers with the opportunity to seek reasonable time to make the payment	N/A	
	Operate in a transparent manner, providing information related to the setting of prices and charges		
30 Education and Awareness	In educating consumers, an organization, when appropriate, should address health and safety, including product hazards, product and service labelling and information provided in manuals and instructions	N/A	
Community Involvement and Development			
31 Community Involvement	Consult representative community groups in determining priorities for social investment and community development activities	○	Consultative body based on the Community Support Project Act
	Participate in local associations as possible and appropriate, with the objective of contributing to the public good and the development goals of communities	○	KOSPO Community Service Group
32 Education and culture	Promote cultural activities where appropriate, recognize and value the local cultures and cultural traditions, consistent with the principle of respect for human rights	○	KOSPO Community Service Group
33 Employment Creation and Skills Development	Analyse the impact of its investment decisions on employment creation and, where economically viable, make direct investments that alleviate poverty through employment creation	○	Policies recommended by the Governmet
	Give special attention to vulnerable groups with regard to employment and capacity building	○	Additional scores to the socially underprivileged
34 Technology Development and Access	Consider engaging in partnerships with organizations, such as universities or research laboratories, to enhance scientific and technological development with partners from the community, and employ local people in this work	○	Promotion of industry-acamedia cooperation
35 Wealth and Income Creation	Consider the economic and social impact of entering or leaving a community	○	Act on Assistance to Electric Power Plants-Neighboring Areas
	Fulfil its tax responsibilities and provide authorities with the necessary information to correctly determine taxes due	○	Compliance of laws and regulations on accounting
36 Health	Consider supporting long lasting and universal access to essential health care services and to clean water and appropriate sanitation as a means of preventing illness	○	Support with Budget
37 Social Investment	Consider partnering with other organizations, including government, business or NGOs to maximise synergies and make use of complementary resources, knowledge and skills	○	Ombudsman activities and management consulting



History

April 2001	Korea Southern Power Co., Ltd. (Spin off from KEPCO) established	July 2009	Generally completed Hadong Thermal Power Site Unit 1 to 8
November 2001	Completed Hadong Thermal Units 5 and 6	November 2009	Graded the highest AA for family-friendly management by theMinistry of Health Welfare and Family Affairs
November 2002	Honored with Grand Award for Energy Management Innovation		
February 2003	Rated AAA at home and BBB+ & A3 abroad	January 2010	Introduced IFRS
November 2003	Honored with Korea Conservation Management Grand Awardfor Energy Innovation for two consecutive years	March 2010	Hung a signboard for the first overseas subsidiary KOSPO/Jordan L.L.C
March 2004	Completed Busan Combined Cycle Power Site	April 2010	Credit rating rose from A2 to A1 by Moody's
March 2004	Completed the first phase development of Hangeong Wind Power	September 2010	Completed the second-phase development of Seongsan Wind Power
October 2004	Acquired KOSHA 18001 certification for all locations of operation	October 2010	CompletedYeongwol CC Power Plant
January 2005	Announced the V-KOSPO vision for future	December 2010	Ranked top in the integrity survey by the ACRC
May 2005	Selected as an exemplary public organization for innovation	December 2010	Achieved KRW 5 trillion in annual revenue, the first for a localthermal power plant
September 2005	Honored with CSR Korea Award	May 2011	Honored with Generation Company Management Grand Award
December 2005	Honored with Korea Management Innovation Award	June 2011	Honored with Korea New Technology Grand Award
July 2006	Conducted initial operation of Namjeju Thermal Power Plant Unit 3	October 2011	Honored with Green Management Grand Award for consecutive 2 years
March 2007	Joined in the UN Global Compact	November 2011	Honored with Korea 100 Best Environment Company
June 2007	Selected as an excellent innovator for three consecutive years	March 2012	Honoredwith Citizen's Voice Grand Award by Anti-Corruption and Civil Rights Commission
October 2007	Honored with Management Grand Award for two consecutive years	May 2012	Completion of Domestic Wind Power Park Construction
October 2007	Registered the second-phase development of Hangeong Wind Power as a CDM project to the UN (the first for a wind power plant in Korea)	May 2012	Honored with CEO Grand Award by the Korean Academics Society of Business Administration
May 2008	Published Sustainability Report	October 2012	Honored with 3-Star Award by ICQCC
October 2008	Honored with Management Grand Award for three consecutive year	November 2012	Received Presidential Citation for New Technology Commercialization Promotion Energy Company
December 2008	Began preparations to construct Samcheok Green Power Site and Andong Combined Cycle Power Site	December 2012	Achieved the largest revenue of KRW 6.9 trillion among Korea Power Generation Companies
January 2009	Announced the Advancement 3030 vision	December 2012	Achieved the 1st grade among the 627 Investigation Institutions in Integrity Evaluation by ACRC
February 2009	Completed the second-phase development of Seongsan Wind Power		

Power Plants



Hadong Thermal Power Site
● **Address:** Gyeongjaesanup-ro 509, Geumseong-myeon, Hadong-gun, Gyeongsangnam-do
● **Fuel:** Bituminous Coal ● **Installed Capacity:** 4,000MW (500 MW×8 units)

Hadong Thermal Power Site in the Southeast area of Korea operates Eight 500MW Korean standard coal-fired power units with 90% of materials and equipment localization rate. Generation cost for the Hadong Site is relatively low and its thermal efficiency is highest compared to other coal-fired power plants in Korea. With environmental pollution prevention facilities such as de-NOx, de-sulfurization facilities in place, the Hadong Site is transforming itself into a public park for local residents.



Shinincheon Combined Cycle Power Site
● **Address:** Jangdo-ro 57, Seo-gu, Incheon Metropolitan City
● **Fuel:** LNG ● **Installed Capacity:** 1,800MW (G/T 150×8 units, S/T 150×4 units)

Shinincheon Combined Cycle Power Site is located near the Incheon International Airport, the hub of Southeast Asian region in the 21st century. The Shinincheon Site takes significant part in the supply of electricity in Seoul and Gyeonggi-do. The Shinincheon Site together with Busan Site, has the largest installed capacity as a single combinedcycle power plant in Korea. Its advanced automation system ensures excellent frequency adjustment, contributing to the stable operation of the grid system.



Busan Combined Cycle Power Site
● **Address:** Gamcheonhang-ro 7, Saha-gu, Busan Metropolitan City
● **Fuel:** LNG ● **Installed Capacity:** 1,800MW (G/T 150×8 units, S/T 150 × 4 units)

Busan Combined Cycle Power Site located in urban residential district is responsible for power supply in the nation's second largest city of Busan and nearby communities. The Busan Site was built on the coal ash pond and coal storage yard of existing coal-fired power plant, using environment-friendly design and engineering technologies. The Busan Site has also operated a catalyst-free yellow plume reducer for the first time in the world and built landscape lighting installations for the first time in Korea.



Hanlim Combined Cycle
620 Dongmyeong-ri, Hanlim-eup, Jeju-si, Jeju Special-Governing Province
● **Fuel:** Kerosine
● **Installed Capacity:** 105 MW (G/T 35×2 units, S/T 35×1 unit)
Hangyeong Wind Power
Yongsu-ri, Hangyeong-myeon, Jeju-si, Jeju Special-Governing Province
● **Installed Capacity:** 21MW (3MW×5 units, 1.5MW×4 units)
Seongsan Wind Power
Susan-ri, Seongsan-eup, Seogwipo-si, Jeju Special Self-Governing Province
● **Installed Capacity:** 20MW (2MW×10 units)

Namjeju Thermal Power Plant
● **Address:** Haean-ro 106 road 55, Andeok-myeon, Seogwipo-si, Jeju Special Self-Governing Province
● **Fuel:** Heavy oil
● **Installed Capacity:** 240 MW (Steam Turbine 100MW×2 units, Internal Combustion 10MW×4 units)

Namjeju Thermal Power Plant is located in the southernmost part of the Korean Peninsula, meeting more than half the demand of Jeju Island. The Namjeju plant was Korea's first pilot plant for localization. The plant has a variety of steam, gas, combined and windpower generation units in operation. The plant is an eco-friendly power plant equipped with pollutant prevention facilities perfectly fit for the environment of Jeju Island as aspecial district for tourism. Under the command of Namjeju plant, Hanlim Combined Cycle and Hangyeong Wind Power, which is the nation's first commercial wind power generator, and Seongsan Wind Power are operating in Jeju Island.



Samcheok Green Power Site
● **Address:** Samcheok-ro 495-23, Samcheok-si, Gangwon-do

Samcheok Green Power Units 1&2 are under construction which began in Jul. 2011 and end in Dec. 2015. A total of KRW 3.2 trillion will be invested in the construction of the two units with the capacity of 2,000MW. Samcheok Green Power will become the world's largest fluidized bed combustion power plant with a two to one boiler-turbine system. As a low-cost, high-efficiency power plant burning low-calorie coal, Samcheok Green Power is expected to contribute to sustainable growth of the company and energy saving of the nation. It will also serve as a model plant of ATP-1000, a coal-fired power plant, leading the nation's drive to export coal-fired power plant.



Youngnam Thermal Power Plant
● **Address:** Jangsengpo-ro 373, Nam-gu, Ulsan Metropolitan City
● **Fuel:** Heavy oil ● **Installed Capacity:** 400MW (200 MW×2 units)

Yeongnam Thermal Power Plant is a main power supplier to Ulsan, a center of industrial activities of the nation. It was built as a base load power plant in 1971. Later it was transformed into operating daily start-up and shutdown to flexibly respond to the changes in the nation's power demand in the 1980s.



Yeongwol Combined Cycle Power Plant
● **Address:** Joongang-ro 411, Yeongwol-eup, Yeongwol-gun, Gangwon-do
● **Fuel:** LNG
● **Installed Capacity:** 848MW (GT 183×3 units, ST 299×1 unit)

Yeongwol Combined Cycle Power Plant is Korea's first anthracite-fired power plant with the history of 36-year operation. The plant was responsible for 50% of Korean power demand in 1960's. The historic power plant was dismantled in 2001 and reborn into an eco-friendly power plant in order to solve the power shortage in the Seoul Metropolitan Area and contribute to the economic development of Gangwon Province.



Andong Combined Cycle Power Plant
● **Address:** Sanupdanji 3 road 39, Pungsan-eup, Andong-si, Gyeongsangbuk-do

Andong Combined Cycle Power Plant is under preparation for construction which will begin in Nov. 2011 and end in Dec. 2013. A total of KRW 330 billion will be invested for the 400MW LNG combined cycle power plant in the northern part of North Gyeongsang province. When completed, it is expected that a stable supply of electricity to the region will be possible, which will contribute to the balanced development of the nation as well as the vitalization of local economy.



Statement GRI Application Level Check

GRI hereby states that **Korea Southern Power Co., Ltd. (KOSPO)** has presented its report "Sustainability Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 22 March 2013



Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative



The "+" has been added to this Application Level because Korea Southern Power Co., Ltd. (KOSPO) has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance

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Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 18 March 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

Embracing Light for a Better Tomorrow

There is a light that never sleeps all day, all year.

It is a light of hope created by green energy technology!

KOSPO strives to provide the world with Korea's No.1 Eco-friendly clean energy.

A reliable alternative, with a clean conscience.

Global Top 10 Power Company, KOSPO

We make a difference for the future.

