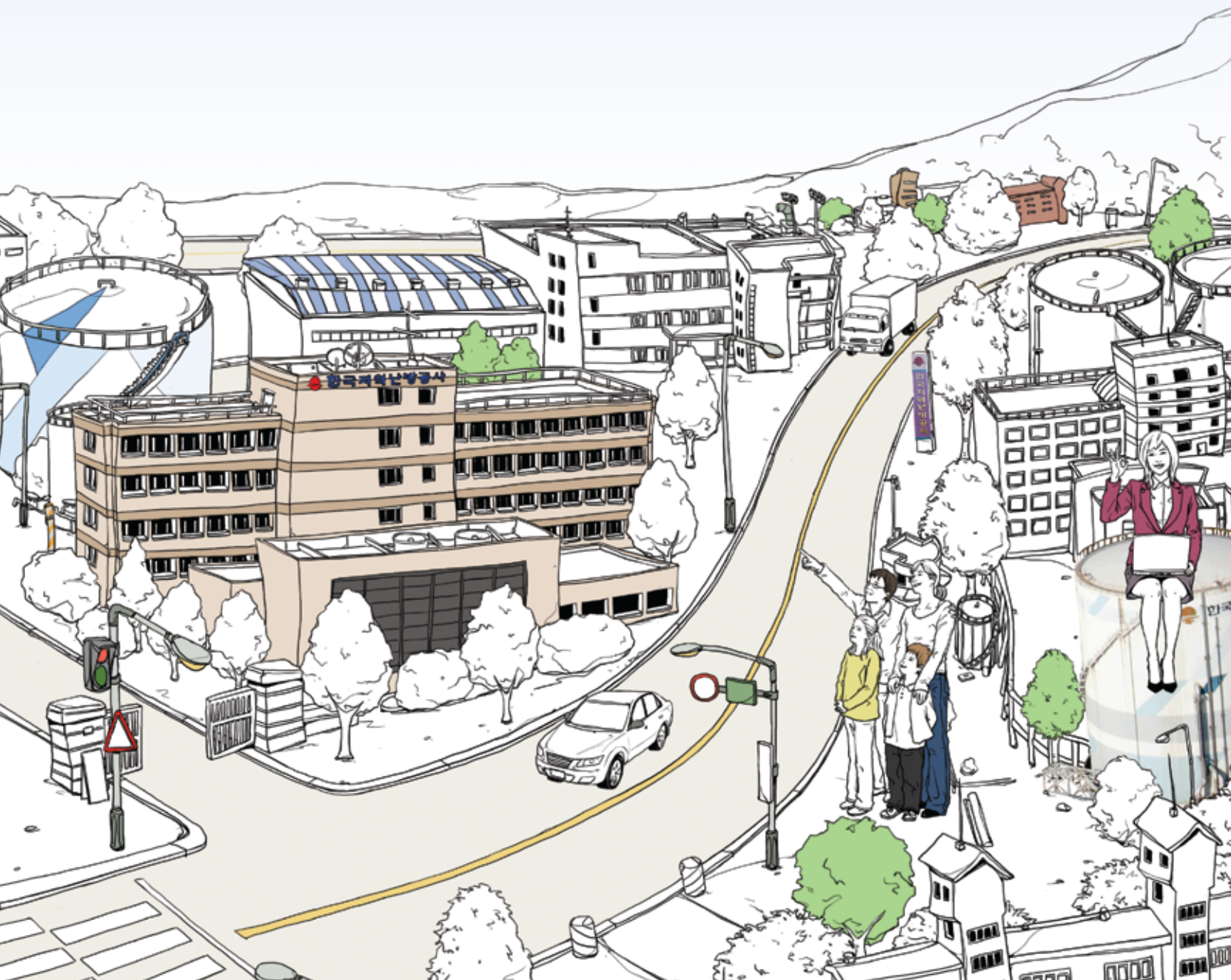




# clean **W**orld through the use of clean **E**nergy

**Smart Energy of KDHC**

2010 Sustainability Report





clean **W**orld  
through the use of  
clean **E**nergy

**Smart Energy of KDHC**

2010 Sustainability Report

# About this Report

## G3.1 Guidelines application level

According to the third-party assurance provider, the sustainability report of Korea District Heating Corporation (KDHC) was drawn up in the direction of meeting all requirements of the A+ level in the GRI G3.1 report application criteria index. The third-party assurance provider has confirmed that this report is rated A+ in terms of the GRI G3.1 Guidelines application level.

## Report features

The fourth sustainability report of KDHC reports the corporation's sustainable efforts and achievements concerning economy, society, ethics, and environment. To ensure the credibility of this report, this report was assured by a third party, and the assurance results are attached in the appendix. Readers can download the sustainability report-which is published in Korean and English -- from our homepage.

## Criteria for drawing up this report

This report has been drawn up based on the GRI (Global Reporting Initiative) G3.1 Guidelines and has been certified to meet the A+ level among the GRI 3.1 Guidelines application levels.

## Boundary and period of the report

KDHC has described its performance from January to December 2010 in time series. This report also includes in part the performance in the first half of 2011. The currency unit used in report is KRW, and the measured data units are Ton, TOE, m<sup>2</sup>, m<sup>3</sup>, cm<sup>2</sup>, g, Inch, nm, MWh, etc. Other units have been described together with numerical values. The sustainability management performance included in this report was based on that of the head office, branches of KDHC, and relevant agencies. Some business activities abroad have been included as well.

KDHC pledges to reach out to readers through the annual publication of the sustainability report. For further information or queries, feel free to contact us at the following:

**URL** <http://www.kdhc.co.kr>

**Tel** 82-31-8018-6413 **Fax** 82-31-702-7238

**Management** Strategy Dept.



## Smart

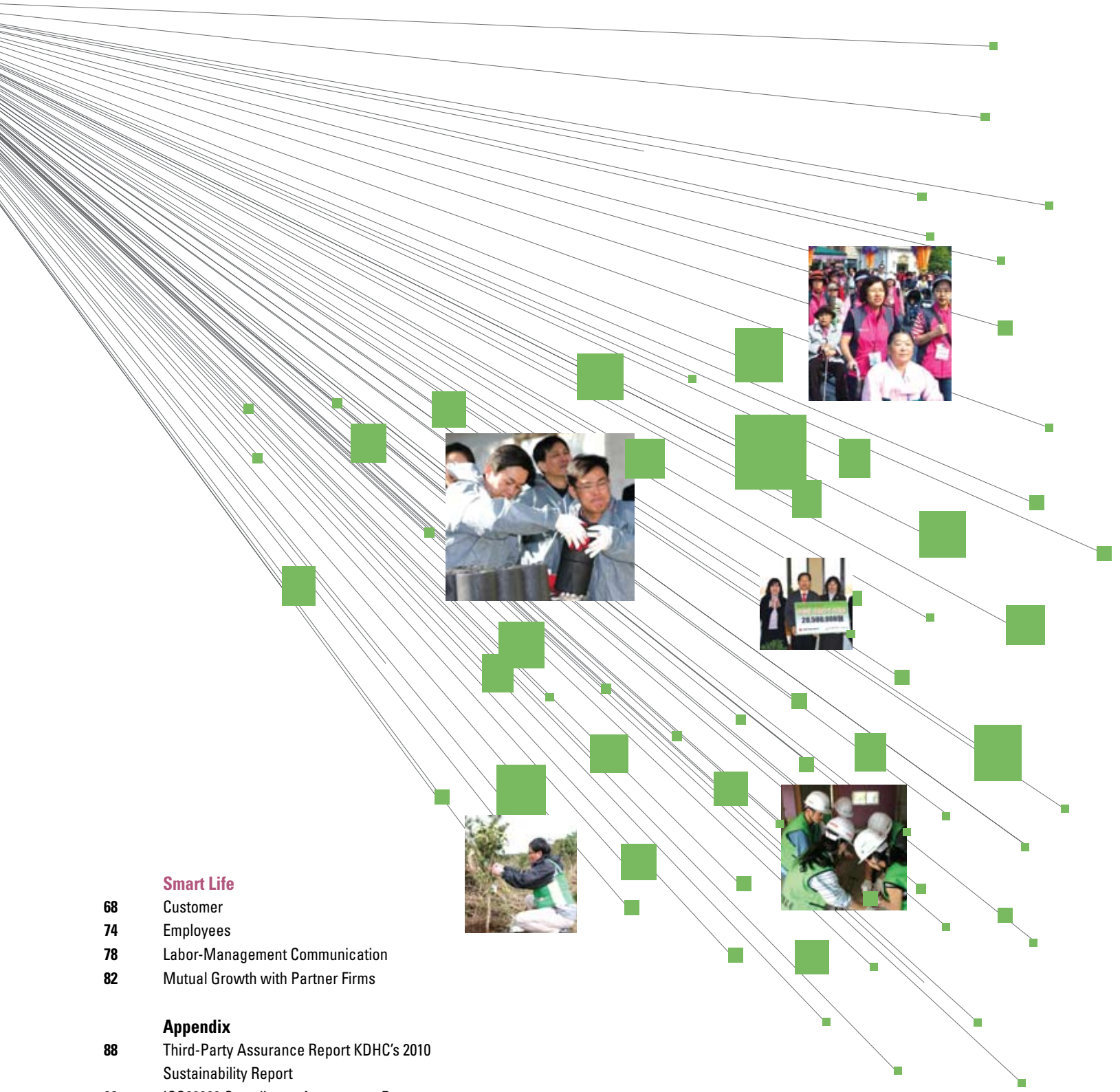
**KDHC's combined heat and power (CHP) is a smart energy supply system that realizes outstanding effects of energy saving and environmental pollution improvement by providing many users with cooling & heating service and electric power in a blanket manner.**

## Korea District Heating Corp. Sustainability Report 2010

# Clean world through the use of Clean Energy Smart Energy of KDHC

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## Message from the CEO

KDHC is developing performance in the ethical, environmental, and social sectors in a balanced system as well as financial performance to enhance sustainable corporate values.



### Responsible, ethical, and transparent organization

KDHC vowed to practice ethical management internally and externally by holding an "Ethical Management Declaration and Action & Resolution Convention" in June 2003; it became a member of the UN Global Compact in May 2007. Through all this, we have been consolidating the ethical management system.

We also make efforts to eliminate corruption and prevent unfair transactions through Cyber Shinmoongo, an internal and external reporting channel on our homepage. We also strive continuously for ethical and transparent business transactions including electronic contract system, integrity contract system, internal accounting management system, and clean card system to enhance transparency in the contract and accounting sectors.

### Putting low carbon, green growth and eco-management into practice

KDHC has been implementing the environmental objectives it established for systematic management by developing the enterprise environmental management system after acquiring environmental management certification in 1996. Furthermore, we endeavor to put eco-management into practice including the adoption of environment-friendly, highly efficient facilities and clean energy use expansion to comply actively with the government's low carbon, green growth policy. We make all-out efforts for optimal atmospheric environment, water quality, and waste to minimize the environmental impacts.

Toward this end, KDHC proactively complies with UNFCCC through measures to reduce greenhouse gas (GHG) emissions and establishment of the environmental impact minimization system.

We have also set the new renewable energy industry as a future growth engine, investing aggressively in energy diversification using various types of new renewable energy including waste incineration heat, land fill gas (LFG), solar light, wood chip, heat pump, RDF, IGCC, and treated sewer.

### Social contribution and sharing management

"Happy energy world" signifies our commitment to build a better world where we can lead a happy life together with communities through social contribution activities including energy welfare. Realizing the importance of social responsibility and role as a public corporation, KDHC has formed desirable mutual relationships with communities by sharing with neighbors based on affection for and interest in the communities.

KDHC minimizes the heating rate increasing factors with efforts to cut down the overall cost to ease ordinary people's burden, actively putting energy welfare into practice though heating service bill reduction and exemption for social welfare facilities and low income brackets. We also practice continuous and stable sharing management actively through various forms of social support and environmental protection activities to narrow the gap in living standard in terms of education, culture, and employment rate between the underprivileged and normal classes and between cities and rural villages.

### Customer-oriented organizational culture

KDHC supports professional education/training to develop employees' customer-oriented mindset for the improvement of service quality and enhancement of customer satisfaction by institutionalizing customer-oriented management as its organizational culture. In addition, we operate various customer-participating organizations such as Open Public Corporation Committee and Open CS Implementation Committee.

Through these, we collect customers' opinions on the improvement and policies for heating service rate and services and actively reflect the voice of customer (VOC) in our management. We also conduct a customer satisfaction survey regularly, and identify customer needs and design the direction of customer-oriented organizational culture. KDHC will constantly do its best for the protection of interests of communities and customers, fully cognizant of the fact that only companies that earn trust and respect through customer impression can develop sustainably. We are also committed to becoming a general energy company that develops customer impression service with unlimited energy for sustainability management.

### Open management, win-win management

KDHC carries out strategic tasks such as the nurturing of world-class talented personnel, HR management focusing on ability and performance, and various welfare systems support, aiming at maximizing corporate values through HR optimization. To strengthen the HR management system, we operate a multi-source feedback

system and offer equal and fair opportunities to all employees in terms of education/training and promotion. KDHC has reestablished reward criteria according to merit and contribution, promoting performance improvement through competition to enable employees to be on equal footing using a system of open post.

We operate a life cycle management welfare program to meet the needs for social and economic status improvement along with the protection of employees' interests. We also endeavor to balance work and life through the selective worker welfare system and health enhancement program. Thanks to constant efforts between labor and management, KDHC was certified excellent company in labor-management culture in 2010.

### Spearheading the undertaking of a win-win growth policy

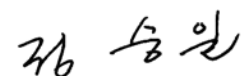
KDHC reaps the actual fruits of support for small and medium businesses (SMBs) including sales channel expansion and reasonable profit assurance by intensively implementing the expansion of SMBs' participation in bids, direct payment of subcontracted work, and activation of separate order placing. We will make all-out efforts to be a public corporation that puts win-win growth into practice through the strategic establishment of various, more effective SMB support policies.

KDHC wants to improve its profitability index through cost savings and enhanced management efficiency and develop new technologies based on low carbon, green growth. Through the enhancement and diversification of the relevant business sectors such as district cooling and heating business, new renewable energy business, and electric power expansion business, we are committed to taking off as a global top-tier eco-energy company providing district heating service to 2 million households nationwide, posting KRW 3.3 trillion sales by 2019, and establishing a reputation as a people's company. We will strive to be a warmhearted, clean company that is trusted and respected by the people and deliver happiness to our customers by establishing a social responsibility management system.

**Jung Seung-il**

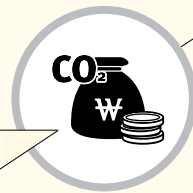
President & CEO

Korea District Heating Corporation



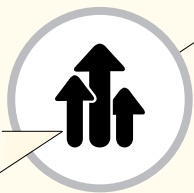


# KDHC Sustainable Highlights



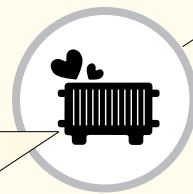
## KRW 470 million in Sales Profit of CER with the active implementation of CDM

KDHC sold the primary CER (certified emission reduction) of the Land fill gas capture and processing CDM (clean development mechanism) in Bangcheon-ri, Daegu. The CDM project is carried out jointly with KDHC, Daegu City, and Daegu Energy Environment, and we have about 10.33% stake. As a result of the first-phase monitoring, we realized sales of KRW 470 million with emissions of 22,000 tons for 8 months. We expect to create about KRW 5.6 billion for the next 7 years.



## Listing with the stock exchange

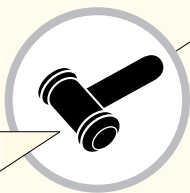
KDHC tried to get listed with the stock market in 2001 and 2007 but failed due to citizens' filing of lawsuit and presentation of petitions. As such, we made great efforts to resolve the misunderstanding by holding road tour (10 sessions) by branch to remove concerns about heating service fee hike and by letting the citizens understand the purpose of listing with the stock exchange. As a result, we succeeded in initial public offering (25% new stocks of total stocks issued) within the scope of maintaining 51% of public sector stake. Finally, KDHC was listed with the stock exchange on Jan. 29, 2010.



## Energy Welfare Policy for the People of Korea

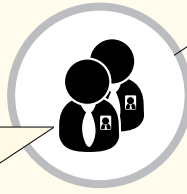
KDHC identified 84 tasks of cost savings by department and realized about KRW 40 billion of cost savings. Consequently, we have curbed heating prices and eased consumer's heating expense burden.

In addition, we have executed basic heating rate exemption and reduction for the underprivileged such as the disabled, patriots, and large families as well as basic rate exemption and reduction for the existing social welfare facilities and rental homes. We have been strengthening continuously the policy for energy welfare realization including expansion of support for heating facilities maintaining/repairing policy, not to mention the heating expense supporting policy for the underprivileged in winter.



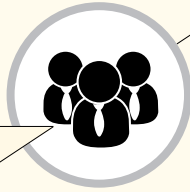
## Highest grade in the anticorruption policy assessment

In the anticorruption policy assessment carried out by the Anticorruption & Civil Rights Commission of Korea (ACRC) in 2010, KDHC was rated "very excellent agency," which is the top grade. We searched system-improving tasks to enhance integrity in 2010 and executed various reform actions for anticorruption including consolidating integrity learning, signing integrity agreements with partner firms, organizing district heating service integrity friends, and raising the reward amount to KRW 2 billion for internal reporting on public benefits.



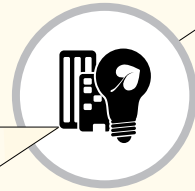
### Engagement in government's job sharing

KDHC employed 80 young interns in active support of the government's job sharing policy. Consequently, 63 of them completed the internship period and received document screening exemption benefit in the regular employee recruitment.



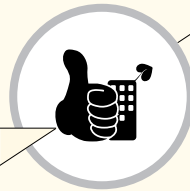
### Establishment of labor-management culture, 3 Advanced and 3 Forwarding strategies

KDHC seeks cooperative industrial relations through zero disputes for 16 years. By signing a non-negotiation wage agreement for 3 years in a row, we provide heating service stability without any business snag that may arise from labor dispute activities. Through our concerted efforts, we have received certification as a company with excellent labor-management culture, which is awarded to companies with model labor-management cooperative culture.



### Acquisition of community energy system business permission for Hwaseong/Dongtan 2 District

In 2008, the government implemented the "new business participation restrictions" of public corporations for private businesses' competitiveness enhancement, along with KDHC's market share easing; thus, we faced difficult situations in propelling new business. Amid such disadvantageous condition, we acquired Hwaseong/Dongtan community energy system business permission by devising detailed standard to convince the relevant agencies reasonably after deciding that our new business can reduce the amount of national energy used and maximize consumer convenience.



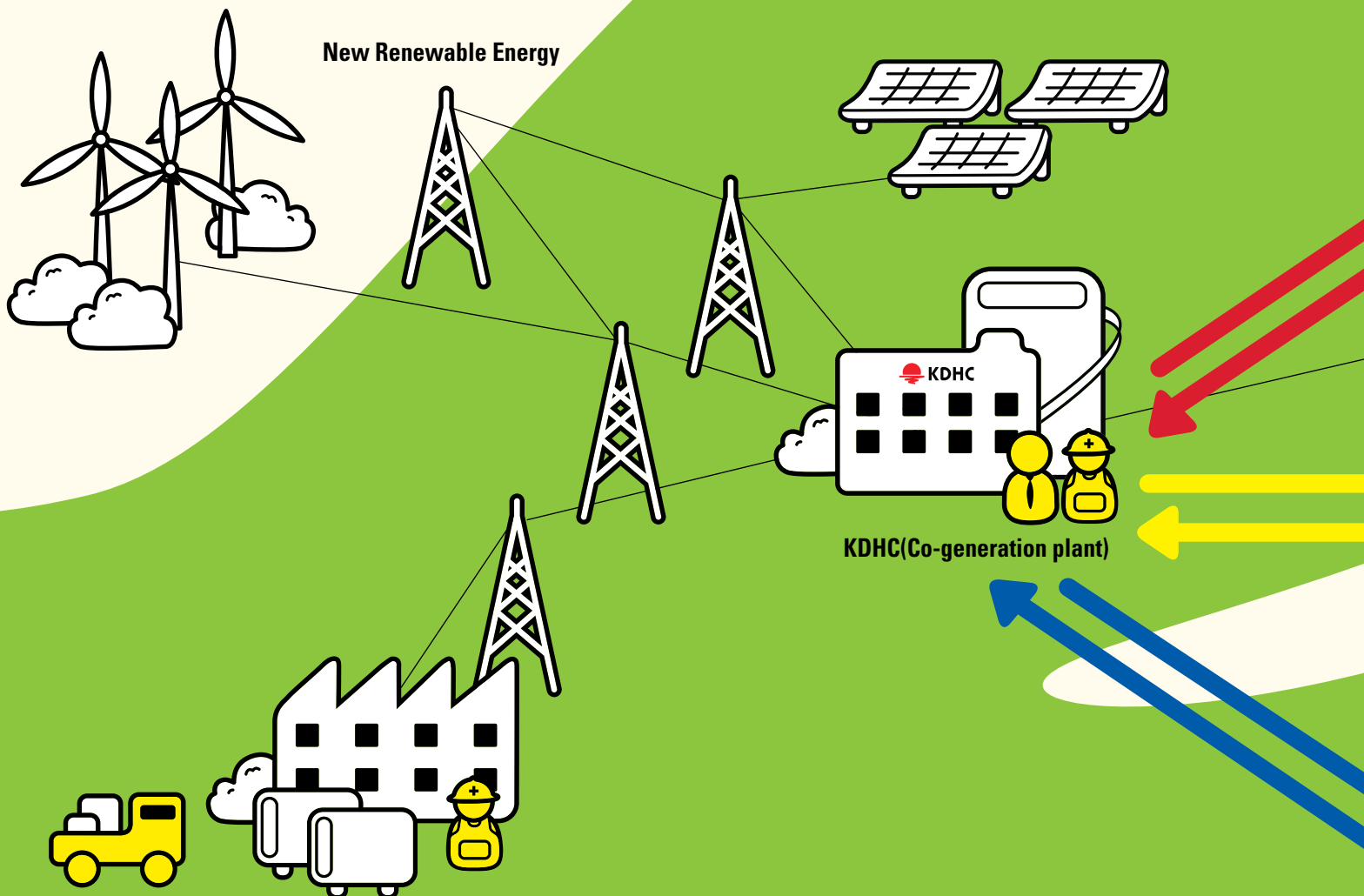
### Selected as outstanding agency for 2010 Autonomous Management Contract with President

The 2010 Autonomous Agreement with the agency head is a system through which autonomous management rights in HR, organization, budget, etc., are awarded to the agency head, who in turn is responsible for the agency's performance. KDHC was selected as outstanding agency in this area. In 3 tasks and 5 measurement indices such as profitability improvement, establishment of low carbon, green growth business structure through cost savings of KRW 40 billion, and improvement in heating service unit price that translated into about KRW 14.7 billion of saving effect, we achieved the best performance among four agencies by garnering a general score of 96.4 points.

# KDHC Sustainability Story

KDHC has published the fourth sustainability report guided by the philosophy that a company putting social responsibility into practice can become a sustainable company in the future.

At the end of 2009, the companies invested in by KDHC numbered 5 including Korea Direct Heating Engineering, which was established to develop expertise in heat supply facilities in 1991. We pursue the harmonious growth of environment, economy, and society for sustainability management; in keeping with this trend, we are looking for new sustainable opportunities. This sustainability report emphasizes our sustainable environmental policy and our social responsibility based on ISO 26000 standard in relation to social responsibility.



**New Renewable Energy**

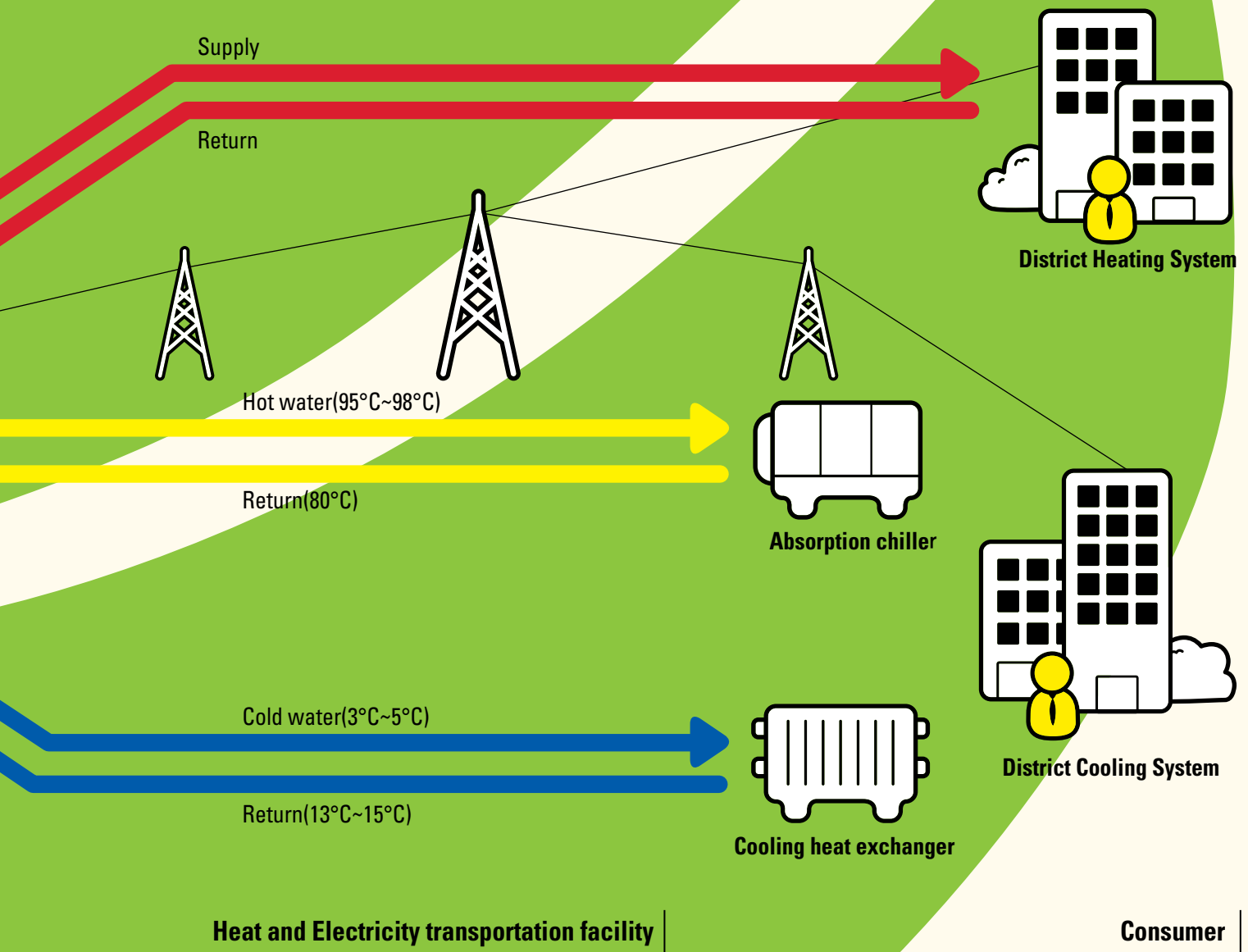
**KDHC (Co-generation plant)**

**Resource recovery / Landfill gas boiler**

**Heat and Electricity production facility**

We launch various activities including eco-business, eco-energy supply chain, social contribution activities, and energy saving to cope with climate change after announcing our mid- and long-term strategies. In addition, our employees operate the "Happiness-Sharing Corps" they voluntarily organized for volunteering and continual social contribution as well as an energy welfare policy for underprivileged and ordinary people.

KDHC will do its very best to create a future filled with hopes by making eco-energy together with sustainable management, through which everyone can live together harmoniously. Through this report, KDHC will pursue the building of a "Happy World" by reporting its social responsibility based on ISO 26000, the international standard for social responsibility and sustainability management, which we need to continue in the future.

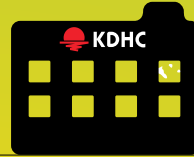


# Smart KDHC

We need warm hearts to build a happy world. KDHC is committed to becoming an energy company that constantly endeavors to make all the citizens happy through energy vested with our warm hearts.

Year of establishment

1985



Organization

3    10    12    3  
 Headquarters    Divisions    Branch    Business Stations

Prescribed number of employees

1,262 person

(5 officers / 1,257 employees as of 2011)



Main business areas

District cooling and heating, community energy supply system (CES), electricity business, new renewable energy business

Status of finance

Capital - KRW 579 billion



Created value-added

Assets 3.34 trillion

1.47 trillion

(capital : 2.5 trillion, 1.89 trillion)

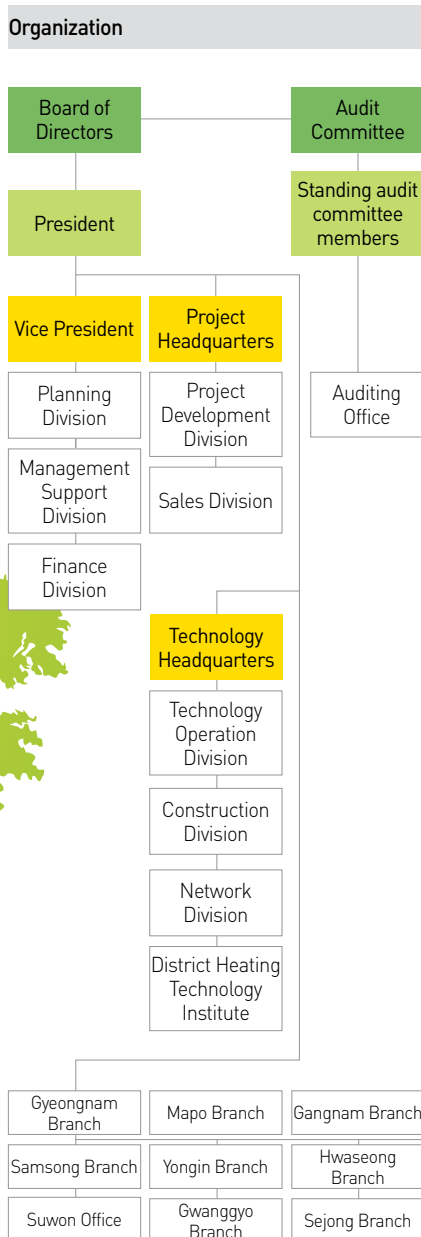
## Overview of KDHC

We were established as Korea District Heating Corporation on November 1, 1985. When we operated business with some 20 people by acquiring heating supply business permission in the southern part of Seoul (Yeoido, Icheon, Banpo), it served as the beginning of KDHC business going full swing. Our district heating supply business began to develop remarkably, as the government announced a plan to build 2 million homes in 5 new towns. As of June 2011, KDHC has grown into a general energy supply corporation with 1,262 employees in 3 headquarters, 10 divisions, 12 branches, and 3 business stations.

### ● Organizational composition

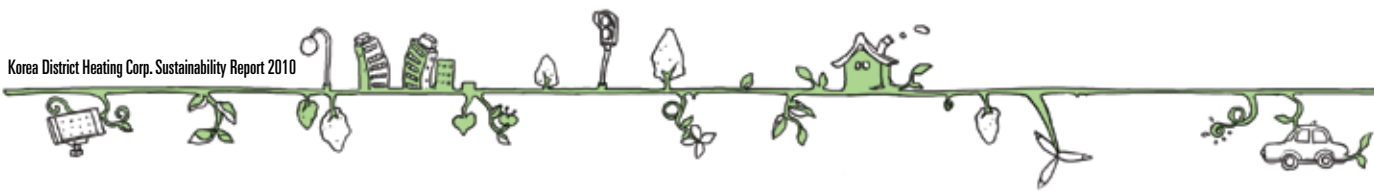
KDHC has established an organization system centered on a horizontal process that consolidates field-centered responsible management system, embodying "a working organization centered on field."

We have adjusted the former 5 headquarters, 13 divisions, 14 branches, and 1,116 prescribed employees into the current 3 headquarters, 10 divisions, 12 branches, 3 business stations, and 1,262 prescribed employees. We also removed the classification of position, rank, and job group, and we currently implement an HR system (open post system) wherein team leader-level officers are appointed according to aptitude and capability. We partially assigned people, centered on electric power and new renewable energy sectors as our flagship businesses. We flexibly operate these according to our growth trend.



Status of KDHC		(2010)
President	Jung Seung-il (took office on Aug. 27, 2008)	
Establishment date	November 1, 1985	
Legal ground	Article 29 of the Community Energy Supply Business Act	
Purpose	Production, transport, and distribution of community energy	
	Installation and operation of community energy supply facilities	
	New renewable energy business	
No. of employees	1,262 people	
Assets	KRW 3.3393 trillion	
Capital	KRW 57.9 billion	
Sales	KRW 1.4375 trillion (total revenue: KRW 1.4770 trillion)	
Sales volume	Heat : 12,126 thousand Gcal /Electricity : 3,942 thousandMWh	
Date of listing with stock exchange	January 2010, KRX	
Address of head office	186 Bundang-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea	





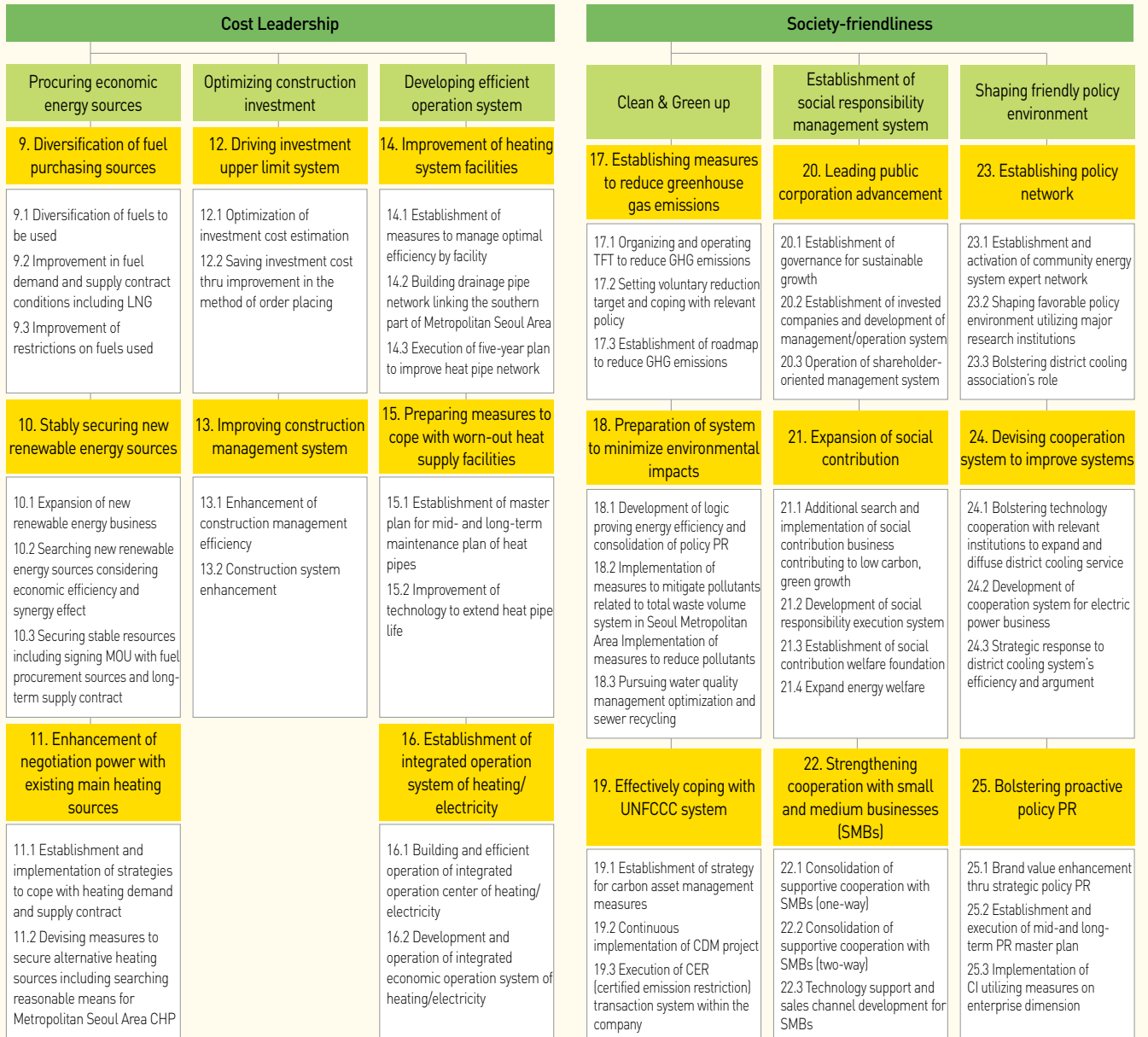
# Management Philosophy and Vision

## Mid- and long-term management strategies



KDHC has established mid- and long-term management strategies considering the environmental changes including domestic and international economic conditions, energy industry trends, and government’s public corporation advancement policy.

The mid- and long-term management strategies consist of the top 9 strategies, 25 strategy tasks, and 70 detailed tasks. Specifically, to secure implementation capability for the mid- and long-term strategy tasks, we simultaneously reflected the mid- and long-term management strategy objectives and pending tasks and consequently laid the foundation to realize KDHC’s vision.





## Status of Business

### ● Status of KDHC's facilities

KDHC built a heat supply pipe network nationwide spanning 1,589km x two pipelines (supply and recovery pipes). Our market share reaches 60%, and we expect the power industry ratio to increase. In examining the sales ratio in each business sector, that of the heating service sector is highest at 64%, followed by the power service sector with 35%, and the cooling service sector with 1%.

KDHC currently provides district heating energy to 1.15 million APTs and 1,857 buildings from branches and business stations located in Gangnam, Bundang, Goyang, Yongin, Daegu, Cheongju, Gyeongnam (Gimhae and Yangsan), etc.

### ● Status of the heating service market

Concerning KDHC's heating service sales ratio, Bundang constituted 24%, and Goyang, 20%. For the power production ratio, Hwaseong took up 83%, and Cheongju, 6%. In terms of fuel expense ratio, LNG accounted for 46%, hydro energy, 28%, LSWR (Low-Sulfur Waxy Residue), 18%, bunker C fuel oil, 7%, and driving power, 1%; LNG took up about half of the total fuel expenses. According to the government's community energy supply plan, the supply rate in 2017 is forecast to be more than twice that of 2007.

Category	Capacity	
Heat production facilities	Combined heat and power (CHP) plant	3 power plants (owned by other companies) Heat : 1,708Gcal/h Electricity : 2,188MW
	Peak load boiler	10 power plants (owned by KDHC) Heat : 882Gcal/h Electricity : 863MW
	Land fill gas boiler	54 units (owned by KDHC) 3,590Gcal/h
	Facilities to recover resources	4 units (owned by KDHC) 118Gcal/h
		12 locations(owned by local governments) 243Gcal/h
Heat storage facilities	Heat accumulator	22 units (owned by KDHC) 391 thousandm <sup>3</sup> (1,342Gcal/h)
Heat transport facilities	Heat supply pipe	(owned by KDHC) 1,589km×2 pipelines

KDHC supplied district heating service to about 1.15 million homes nationwide as of 2010. By establishing a heat supply pipe network linking the Seoul Metropolitan Area connecting from Paju to Hwaseong, we have secured stability of heating service along with facility use efficiency enhancement by region.

Our electric power business is continuously growing, thanks to the new power plant construction. The operation of power plants located in the Seoul Metropolitan Area including Hwaseong, Pangyo, Suwon, and Gangnam greatly contributes to stable power system operation.

### ● Electric power business

KDHC is currently operating CHP plants in Daegu, Suwon, Cheongju, Hwaseong, and Pangyo; our electric power business ratio is predicted to rise gradually, according to the construction of CHP plants in Paju, Gwanggyo, Hwaseong/Dongtan 2, and Samsong.

The electric power produced in the CHP plants in Daegu, Suwon, Cheongju, Hwaseong, and Pangyo and that produced through new renewable energy such as incineration heat in Gangnam, wood chips in Daegu, and solar energy in Jeungdo Shinan are sold through Korea Power Exchange. The power produced in the Daegu solar energy power plant is directly sold to Korea Electric Power Corporation. We also operate the district electricity business, which sells electricity to end users directly from small-scale community energy supply system business areas including the Dongang Region distribution complex, Garak Remian, and Sangnam District 2.

Category	Branch	Supplied region	No. of households supplied	Ratiao
North of Han River	Paju Branch	Paju Gyyoha, etc.	23,498	
	Goyang Branch	Ilsan, Haengshin, etc.	183,919	
	Samsong Branch	Samsong, Eunpyeong, etc.	14,138	
	Mapo Branch (Sangam, Jungang)	Yeoido, Sangam, etc.	69,654	
	<b>Subtotal</b>		<b>291,209</b>	<b>25.4%</b>
South of Han River	Gangnam Branch (Suseo, Ilwon)	Suseo, Ilwon, etc.	176,231	
	Pangyo Branch	Pangyo, Dochon, etc.	24,810	
	Bundang Business Station	Bundang Housing Site Zone	106,624	
	Yongin Branch	Yongin, Dongbaek, etc.	164,129	
	Suwon Branch	Jangan, Gwonseon, etc.	114,557	
Provincial Branch	Hwaseong Branch	Dongtan, Beopajeong, etc.	54,954	
	<b>Subtotal</b>		<b>641,305</b>	<b>55.8%</b>
	Cheongju Branch	Bunpyeong, Gagyeong, etc.	69,164	
	Daegu Branch	Daegu Seongseo, etc.	101,712	
	Gyeongnam Branch	Gimhae Jangyu, etc.	27,836	
Subtotal	Yangsan Mulgeum, etc.	17,006		
	<b>Subtotal</b>		<b>215,718</b>	<b>18.8%</b>

Status of district heating supply nationwide

**Samsong** Eunpyeung New town(14 thousand household)

**Goyang** Ilsan, Hwajeong(184 thousand household)

**Mapo** Yeouido, Banpo, Sangam, Ichon (70 thousand household)

**Gangnam** Gangnam, Seocho, Songpa (176 thousand household)

**Bundang** Bundang (107 thousand household)

**Pangyo** Pangyo (25 thousand household)

**Paju** Gyoha, Unjeong (23 thousand household)

**Suwon** Yeongtong, Kweonseon, Cheoncheon(115 thousand household)

**Yongin** Suji, Jukjeon, Dongbaek (164 thousand household)

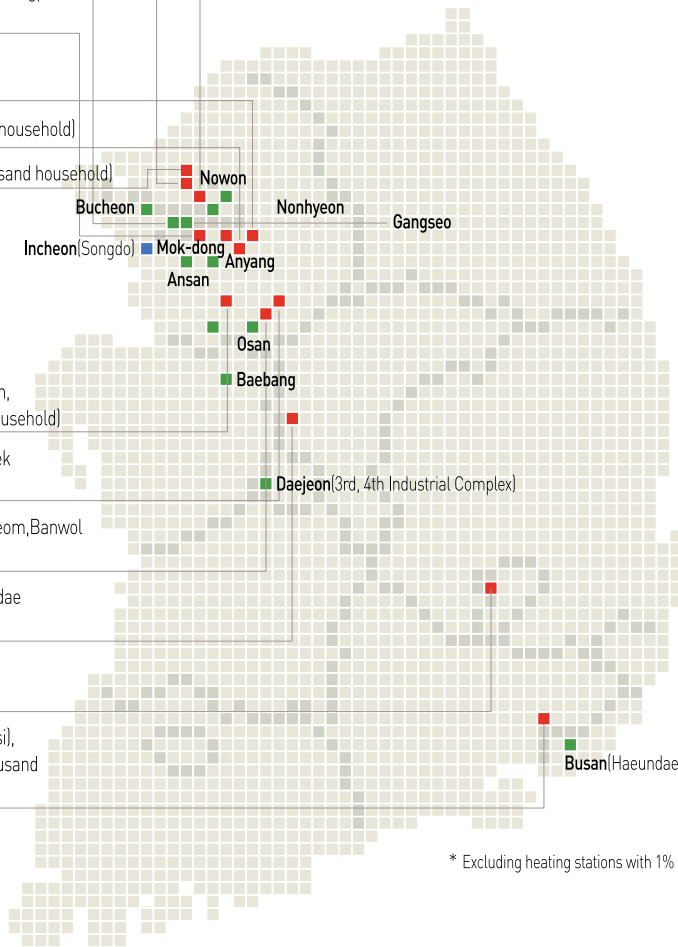
**Hwaseong** Dongtan, Byeongjeom, Banwol (55 thousand household)

**Cheongju** Bunpyeong, Habokdae (69 thousand household)

**Daegu** Seongseo, Daegok (102 thousand household)

**Gyeongnam** Jangyu(kimhae-si), Mulkeum(Yangsan-si) (45 thousand household)

- KDHC
- Invested companies by KDHC
- Other district heating business places



\* Excluding heating stations with 1% market share

\* LNG (Liquefied Natural Gas) :

LNG is the liquefied gas produced by cooling the methanol acquired by refining natural gas. Specifically, LNG is liquefied through about 600 times more compression of natural gas at -162°C. Thanks to the refining process, LNG has very high pure methanol content and zero moisture.

\* LSWR (Low-Sulfur Waxy Residue) :

LSWR is low-sulfur waxy residue fuel oil (Bunker C). Sulfur content is generally 0.3wt% or less. As the name suggests, LSWR contains a large amount of low sulfur or waxy ingredient. At room temperature, LSWR hardens and turns into solid; thus, a separate warming facility is required to store LSWR.



# Corporate Governance



KDHC has improved governance in a more transparent, rational way. Through the board of directors' aggressive activities, we have been evaluated highly in terms of governance improvement effort, and the pre- and post-management systematization of the internal audit system has been reinforced.

## ● Shareholders and general shareholders' meeting

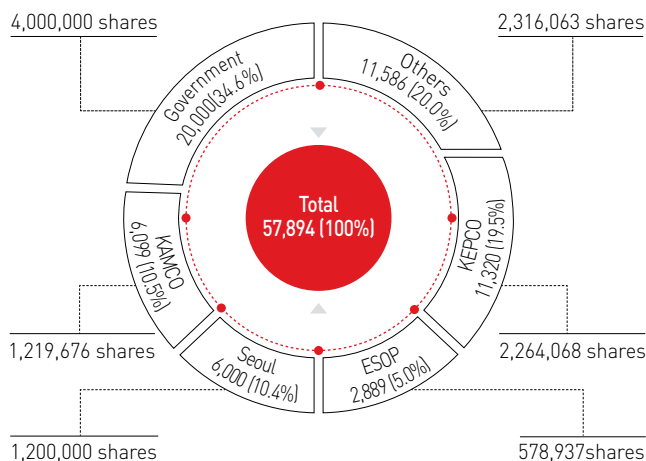
KDHC has been practicing shareholder-centered governance since its stock was listed with the stock exchange in January 2010 according to the government's public corporations advancement policy. With KDHC listed with KRX (Korea Exchange) through new stocks issue, the scope of shareholders was extended to general shareholders and employee stock ownership association in addition to four shareholder institutions -government, KEPCO, Korea Energy Management Corporation, and Seoul City. KDHC increased its capital to KRW 130.2 billion through stock market listing and ensured public attributes by limiting stock ownership to 3% per person through the revision of the Community Energy System Business Act and change of articles of incorporation. Shareholders exercise their voting rights based on the articles of incorporation, officer appointment decision, and closing account approval through the general shareholders' meeting.

## ● Governance of the board of directors ("the board")

As the top decision-making organization of KDHC, the board consists of 11 members including 5 standing directors and 6 non-standing directors. The senior non-standing director assumes the board chairmanship. The individual director's main career and board meeting minutes are disclosed on our homepage (www.kdhc.co.kr). Those with extensive experience and expertise in the energy sector are appointed standing directors. Board operation performance is evaluated by the board itself; thus promoting function improvement and responsible management in this manner.

**KDHC's Invested Companies**

(Unit: KRW million, %)



**KDHC's Invested Companies**

Category	Business outline	Capital	Details of investment	Establishment date	Financial results in 2010
Korea District Heating Engineering	District cooling and heating technology service	KRW 4.41 billion	KDHC: KRW 2.205 billion (50%) POYRY FINLAND: KRW 2.205 (50%)	Nov. 1 1991	Asset: KRW 23.3 billion Net profit: KRW 4.4 billion
Incheon Total Energy Company	Supply of community energy to Incheon Songdo New Town (KRW 75.6 billion) and KDHC (KRW 37.8 billion, 50%) June 10, 2004 Assets: KRW 390.8 billion	KRW 75.6 billion	KDHC: KRW 37.8 billion (50%) Incheon Metropolitan City: KRW 22.7 billion (30%) Samchully: KRW 15.1 billion (20%)	Jun. 10 2004	Assets: KRW 390.8 billion Net Profit : ΔKRW 14.9 billion
Huces	Supplying community energy to Suwon Homaesil and Hwaseong Hyangnam Districts	KRW 50 billion	KDHC: KRW 24.5 billion (49%) Samchully: KRW 25.5 billion (51%)	Sep. 1 2006	Assets: KRW 71.1 billion Net Profit : ΔKRW 2.5 billion
Suwan Energy, Inc.	Supplying community energy to Gwangju Suwan/Hanam District	KRW 30 billion	KDHC: KRW 8.7 billion (29%) Industrial Bank of Korea: KRW 15 billion (50%) Kengnam Engineering: KRW 6 billion (20%) Gwangju Metropolitan City: KRW 300 million (1%)	Jan. 3 2007	Assets: KRW 302.3 billion Net Profit : ΔKRW 14.2 billion

\*KDHC sold equity in Kyungnam Power in August 2010

## Corporate Governance

# 2

### ● Rights and responsibilities of the board

As per the regulations of KDHC, important issues related to company management are executed through deliberation and resolution by the board. The board meeting is convened when majority of the incumbent directors are present, and the items on the agenda are decided by the approval of the majority of the attending directors. Any director with interest in any item on the agenda cannot vote pursuant to the board regulations. In this manner, the transparency of the board operation is maintained.

Composition	Operation is centered on non-standing directors.	<b>Non-standing directors' meeting:</b> Presided by the senior non-standing director
	Chairman : Senior non-standing director	<b>Audit committee:</b> Standing audit committee member and two non-standing directors
	Composition : 5 standing directors, 6 non-standing directors	<b>Management Strategy Committee:</b> Two standing directors and four non-standing directors

### ● Status of board meeting operation

A total of 12 board meetings were held in 2010, with 34 items to be decided and 35 items of reporting for a total of 69 items deliberated on. For the past 3 years including 2010, the attendance rate of the incumbent directors was at least 97%. KDHC will make every effort to secure various conditions to activate the board meeting.

Status of Board Meetings for Three Years			
Category	2008	2009	2010
No. of meetings held	13	14	12
No. of items on the agenda	63	85	69
Attendance rate of non-standing directors (%)	100	97.6	100

### ● Board meeting communication

The board meeting needs to be convened each month as a rule; it can be held anytime as necessary depending on the pending issues of management. This way, KDHC ensures accountability and transparency in decision making. To improve the top-down mode of decision

making system, the rank and file are encouraged to participate in the non-standing directors' meeting and present opinions following pre-explanation on the items on the agenda of the board meeting. In 2010, we revised the board regulations as follows to bolster the board meeting's role and expand authorities: notwithstanding any business decided through the resolution of the board meeting, when important matters such as business mode and facility size are changed, they are subject to the board meeting's resolution again, and; to ensure fairness of the board of meeting resolutions, any director with special interest in an item on the agenda cannot participate in the voting process as per the articles of the incorporation. KDHC is doing its very best to support the board activities by operating the board homepage; thus securing two-way communication between the board and employees.

### ● Systematized internal audit system

KDHC runs an internal audit strategy system in keeping with the trend of regular mid- and long-term audit strategies. We strengthen monitoring centered on work with huge ripple effects and conduct preventive audit through general and specific audits. By developing the intelligent e-audit system, we recommend to the management the improvement of the relevant system before an accident takes place or carry out education/training for the prevention of recurrence. For the post-audit management system, we have established an "On-audit system" and made sure audit is conducted once a year. KDHC consolidates transparency by building an internal audit quality evaluation system and conducts risk assessment on the audit object.

Composition of Non-Standing Directors						
Category	Gender		Age			Area
	Male	Female	50s	60s	70s	
People	5	1	2	3	1	Diverse areas including environment, media/press, business sectors
Ratio (%)	83	17	33	50	17	

# Smart Sustainability

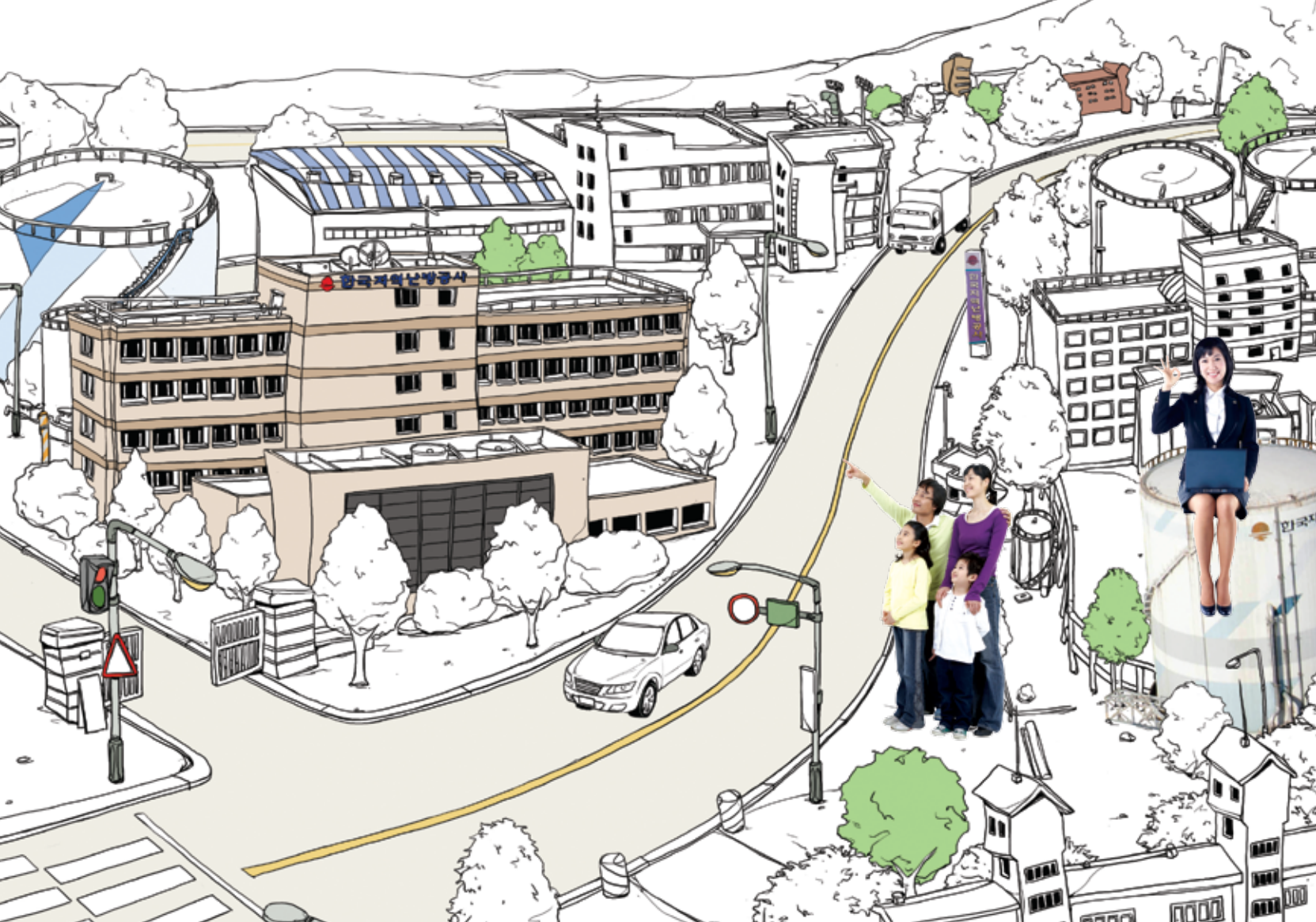
KDHC strives to establish a sustainability management system as its management system to lay the foundation for sustainable development. We divide activities for sustainable growth and development into the environmental, economic, and social sectors, establish specific vision, objectives, and execution strategies, and carry out sustainability management activities.



Challenging  
Energetic  
Owners



HAPPYENERGY  
Vision  
2019



# Sustainability Management System and Organizations

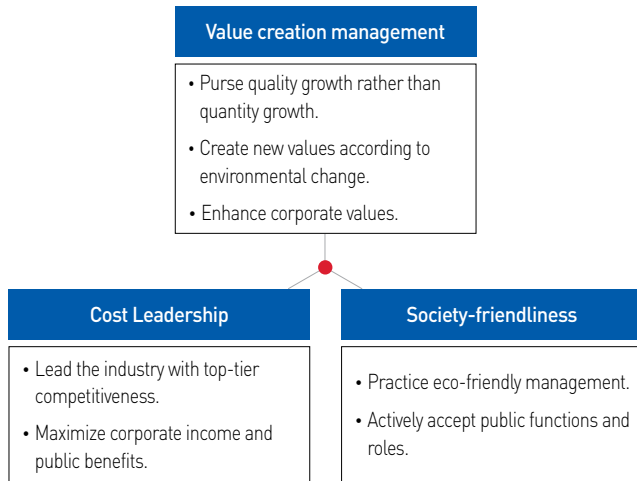


The establishment purpose of KDHC is to enhance citizens' convenience and its social contribution by laying the groundwork for the long-term, stable supply of energy. This purpose has been embodied into KDHC's mission of "We build a happy world of energy." We play a role in presenting the sustainability management vision and strategy direction.

## ● Sustainability management system

KDHC makes all-out efforts for sustainability management by diversifying energy supply sources, securing energy resources' long-term stability, and pursuing the globalization of business areas. In particular, we spearhead the safe and smooth supply of energy, environmental protection, and minimization of global climate change impacts. KDHC executes an energy welfare policy to serve the people and fulfill its responsibility as a corporate citizen. Our Policy Team supervises each sector's strategies such as the departments of environment, ethics, social contribution, and safety, integrates them into sustainability strategies, and links them with KDHC's business strategies. The establishment of all these strategies and execution results are reviewed and decided through KDHC's top decision-making organization.

### Sustainability Management Strategy Direction



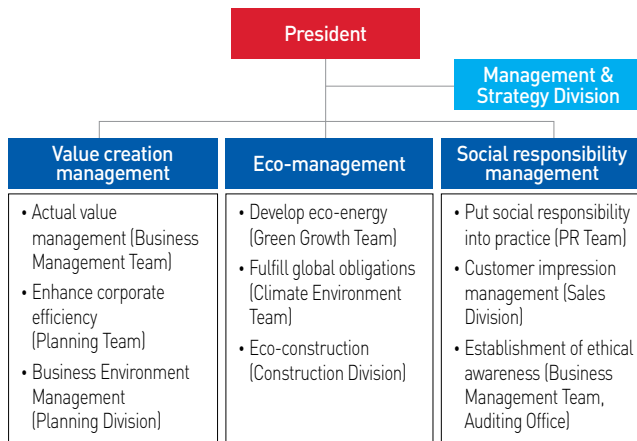
### Linkage Between Sustainability Management Strategies and Business Strategies

Strategy direction	Value growth	Cost Leadership	Society-friendliness
Top 9 strategies	Develop quality growth-centered business.	Procure economic energy sources.	Clean & Green Up
	Differentiate services	Optimize construction investment.	Build social responsibility management system.
	Consolidate core capabilities.	Build efficient operating system.	Shape favorable policy environment.

## ● Linkage between sustainability management strategies and business strategies

KDHC checked the results of vision and strategies in 2010, analyzed the management environment and internal competence, and adjusted the strategic system. In the process of business for resources development, we have emphasized the social aspect such as possible human rights breach, supplemented the environmental management policy including the reduction of GHG emissions and climate change, and integrated these into sustainability management. We also included various preparation processes to use ISO 26000 -- which was announced as an international standard -- in our strategy tasks at the end of 2010.

### Sustainability Management Organization



# Sustainability Management System and Organizations 2

## ● Sustainability environmental management activities

Before new renewable energy -- which is currently being developed worldwide -- secures actual economic efficiency, the environment-friendliness of natural gas is expected to attract interest and attention. KDHC has led efforts to reduce CO<sub>2</sub> emissions at the national level through the active execution of district heating service business and has established and executed its "low carbon, green growth" vision in linkage with the government's low carbon, green growth strategy. All in all, we have laid the mid- and long-term foundation for efforts to cope with climate change. Natural gas is fuel boasting of environment-friendliness attributes compared with other types of energy; hence the negligible number of cases of environmental breach in view of our business features. KDHC wages various campaigns including "cleaning and preserving one river per company" and "shaping camellia forest" to enhance overall responsibility awareness with regard to environmental protection, strive to protect our environment such as atmosphere, water, and soil and boost social environmental protection awareness.

## ● Sustainable economic activities

By linking the sustainability management strategy and implementation roadmap established in 2009 with KDHC's entire strategies in the review and re-establishment process of business strategies in 2010, we have consolidated our capability to implement those strategies. By securing resources in the economic aspect, and through green growth strategy in the environmental aspect, we have bolstered the accomplishment of tasks to cope with climate change.

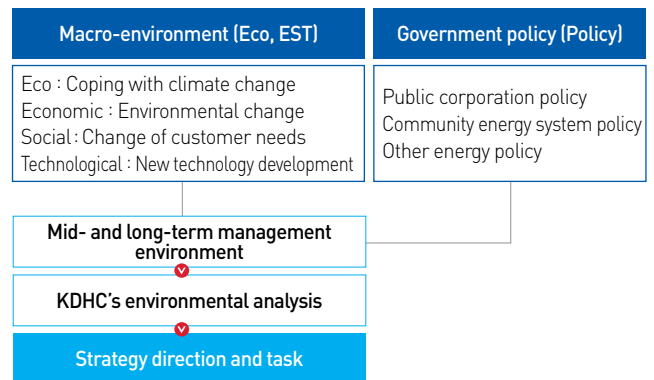


\* By dividing corporate activities into primary and support activities and systematically examining individual activities, we carry out value chain analysis to understand the firm's strengths and weaknesses. Draw measures to consolidate the primary activity area and reduce the support activity area.

### KDHC's Social Contribution Strategy

Category	Adoption period	Settlement period	Maturing period
Main player	KDHC, Happy Sharing Corps.	KDHC, Happy Sharing Corps.	KDHC, Happy Sharing Corps.

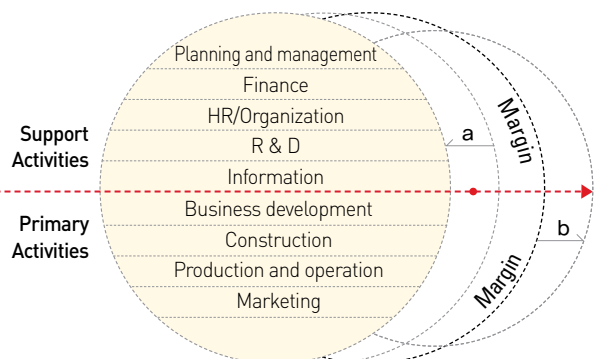
### Environmental analysis structure



\* The analysis results of macro-environment and government policy environment are used for comprehensive strategy development.

## ● Sustainable social contribution activities

Our efforts to develop continuous social contribution activities and intensively execute those activities in line with KDHC's features -- beyond temporary, scattered social contribution activities -- continued in 2010 as well. In particular, we continuously strive to consolidate linkage with communities and improve citizens' energy welfare. KDHC is committed to fulfilling its responsibilities as a public agency and promoting win-win development through communities, small and medium businesses, and underprivileged based on consistent change and innovation.





# Risk Management

Risk management and responsiveness to efficient management of energy become the survival factors of companies given the worsening environmental disasters and climate change that seriously damage our living base worldwide. KDHC has built an enterprise risk management system by choosing the material risks in overall management in advance and systematically managing them. This way, we overcome the negative impacts of the global economic downturn. In particular, we focus on predicting, assessing, and preventing hazards in the risks in advance. Such is aimed at taking action to prevent the risks from evolving into a full-blown crisis. All these are designed to minimize damages in case risks actually occur and evolve into a crisis. Risk management consists of activities to cope with an emergency situation.

## ● Organization of Risk Management and Disaster Safety HQ

KDHC's risk management enables restricting new businesses, fragmenting potential risk factors by value chain of heating and cooling business ranging from facility construction and adoption and production of key facilities to supply and sales, assessing risks in combination with frequency and ripple effects, and deciding the response level. For management risks, we have decided the point in time to cope with a crisis and have illustrated the signs of crisis in advance in the manual by field. When a crisis sign is detected, we establish a preliminary action system as a stage of interest or caution according to the crisis level and decide whether to run the actual response system, which is a serious stage or a stage for vigilance.

## ● Risk management system and activities

KDHC's material risk management systems include a financial risk management system to control and manage financial risks including exchange rate, oil prices and interest rate, on-audit system for the real-time monitoring of organization members' corruption situation, and financial ERP system to cope with emergency by examining field safety and health and environment management risk factors and by presenting counteractions. KDHC's President serves as the supervising head of these systems, with the Finance Dept. Manager acting as manager of their execution. These systems are operated based on processes such as danger factor examination and risk assessment as well as devising actions to ease and seek measures to cope with a crisis.

### Risk Management Procedure

#### Recognition

Identify the location of various potential risks.



#### Measurement and Assessment

Decide the measuring methods by risk type, measure the risk scale, and assess the appropriateness.



#### Control

Control risks through regular or routine reports.



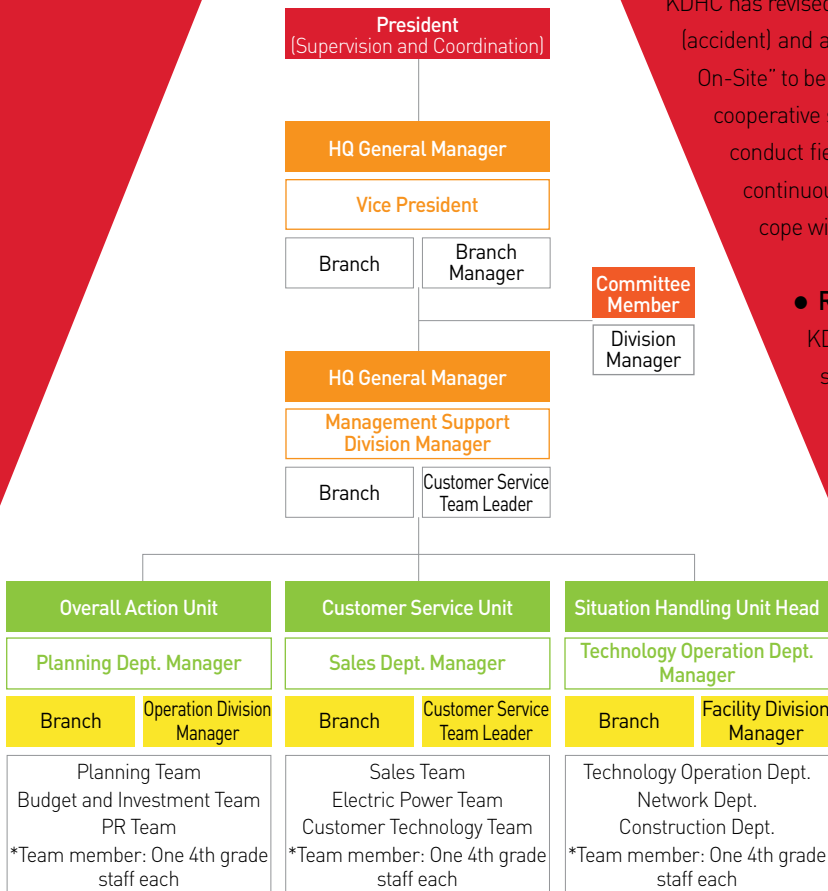
#### Monitoring and Reporting

Continuously monitor the risk level and decide the reporting path, details, and cycle.





### Organization of Risk Management and Disaster Safety HQ



#### ● System and activities to cope with crises

KDHC has revised and supplemented the risk management manual so that a risk (accident) and a scenario match one-to-one. By devising a "Manual for Actions On-Site" to be applied to the head office and branches, we have built an organic cooperative system between the head office and branches. Through this, we conduct field training on Safety Inspection Day every 5th of the month and continuously carry out virtual accident training to improve our capability to cope with disasters.

#### ● Risk management activities

KDHC strives for the safe, stable supply of energy, guided by its mission of providing fuels to people who account for more than 60% of the primary energy consumption in Korea. The crisis situation involving energy supply may cause a problem in the stable supply of energy as well as considerable inconvenience to everyday life. Bearing all these in mind, we decide the level of coping with risks considering the social and economic ripple effects.



# Ethical Management

# 1

KDHC has never caused a negative social issue in relation to corporate ethics since its establishment. In the 2010 Sustainability Management Fact-Finding Survey carried out by the Knowledge Economy Ministry, KDHC was named excellent corporation for 7 consecutive years. We were also evaluated as an outstanding agency in the 2010 Public Agencies Integrity Measurement and as a very outstanding agency in the 2010 Anticorruption Policy Assessment conducted by the Anticorruption and Civil Rights Commission of Korea (ACRC).

Vision 2015

Energy company that continually grows based on trust to build a world with integrity and a fair society

Core values

Fairness	Transparency	Rationality	Integrity	Responsibility
<b>&lt;2010&gt; Establishment of Integrity infrastructure</b> • Achieve 9.0 or higher in integrity index. • Maintain AAA in sustainability management for 7 consecutive years.		<b>&lt;2012&gt; Substantiation of Integrity Culture</b> • Zero Corruption KDHC • Achieve the best rating in anticorruption policy assessment.		<b>&lt;2015&gt; Best Integrity Level</b> • Stakeholder satisfaction • (No. 1 in customer satisfaction)
<b>Establish anticorruption foundation</b> • Build anticorruption implementation system. • Activate private-public sector cooperation together with stakeholders.	<b>Interest and efforts of President</b> • Maximize dissemination effect of agency head integrity by stakeholder. • Participate in anticorruption and consolidate recognition.	<b>Improve system and regulations</b> • Identify corruption-causing factors and maximize improvement of such. • Thoroughly improve the system related to corruption. • Implement systematic corruption impact assessment.	<b>Compliance with code of conduct; activate internal reporting of irregularities</b> • Prepare for internal irregularity reporting activation. • Enhance execution ability of code of conduct.	<b>Educate and publicize anti-corruption</b> • Frequently shape ethical and upright learning base. • Consolidate strategic PR activities.

Mid- and long-term objectives

Strategies in 2010



KDHC Anti-corruption Execution System and Integrity Culture

Foundation to put them into practice

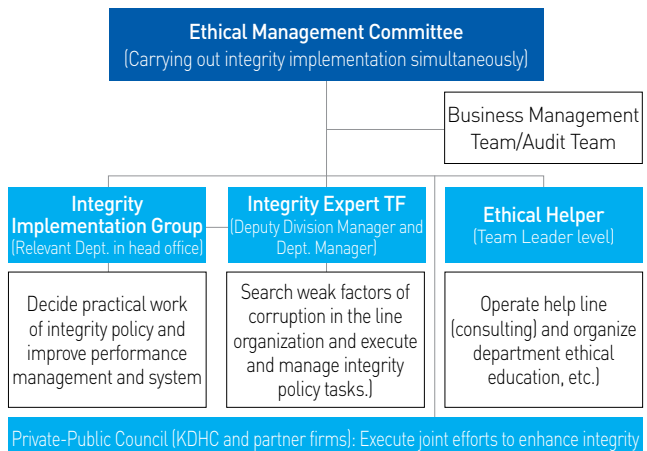
CEO's commitment	Anticorruption/Integrity norm	e-Audit system	Organization/System operation	Enterprise participation and action	Ethical awareness
<b>Planning (P)</b> • Anticorruption and integrity plan, etc.		<b>Sharing/Dissemination (D)</b> • Operation of ethical helpers, etc.		<b>Execution of measurement/Feedback (S)</b> • Questionnaire survey workshop, etc.	

Management system

## ● Ethical management

As the moral judgment criterion or value system that tells the right and wrong behaviors or attitudes, ethical management refers to the criterion in corporate decision making and judging acts with regard to values and philosophy pursued by stakeholders. KDHC carries out business transparently, fairly, and rationally according to ethical norm, putting the highest priority on ethical management in management activities. In particular, we actively comply with corporate ethics including stipulating preferential consideration of ethical aspects in the code of conduct when conflict arises between profit pursuit and corporate ethics.

## Ethical Management Committee Structure



# Ethical Management

# 2

### ● Ethical management strategies by stage

KDHC places the highest value on ethical management to realize sustainable development and to grow as a trusted company and carries out management activities accordingly. We held an "Ethical Management Declaration and Action Convention" in June 2003 and proclaimed ethical responsibility consolidation internally and externally. In 2005, we established an ethical management master plan, executed implementation strategies by stage, and reorganized strategic tasks. This way, we have been bolstering the ethical management system. In 2012, we plan to adopt an ethical management program suitable for the global standard. KDHC is bent on establishing a world-class ethical management system.

### Ethical Management Strategies

2003 Year	Ethical management declaration
2004 Year	Best public corporation in the ethical management fact-finding survey
2005 Year	Establishment of ethical management master plan
2006 Year	Won ethical management grand prize in Korea Management Awards
2007 Year	Established sustainability management strategies and joined UN Global Compact as member
2008 Year	Establishment of ethical management IT
2009 Year	Full revision of code of conduct
2010 Year	Expansion of Integrity infrastructure and achievement as best company in anticorruption policy assessment

### ● Expansion of Integrity infrastructure

KDHC set as its ethical management objective for 2010 the consolidation of integrity culture to expand Integrity infrastructure and strove for Integrity infrastructure expansion. Through the enterprise ethical management action system (STEP), ethical management tasks are assigned to each department of the head office and branches; KDHC reflects the results on the internal management assessment, offers feedback, and improves its ethical management activities. In 2010, we expanded the foundation considerably including the implementation of 13 system-improving tasks and adoption of the integrity suggestion system and integrity learning certification system along with integrity friends formation.

Consequently, there was no corruption case in 2010. Likewise, as a result of the government's public agency integrity measurement, we were recognized as an excellent agency and the best public corporation in the anticorruption policy assessment.

### Objectives in 2010: Consolidation of Integrity Culture Through Integrity Infrastructure Expansion

Planning System	
Ethical management action system (STEP)	Integrity policy implementation plan
<b>Process</b> Task selection (Team in charge) ◀ Task confirmation (Ethical Management Committee) ◀ Task implementation ◀ Inspection/Evaluation (Ethical Management Committee) ◀ Feedback	<b>Process</b> Selection of integrity policy task (Team in charge) ◀ Plan confirmation (Ethical Management Committee) ◀ Inspection (Team in charge) ◀ Feedback

Execution Infrastructure		
Area	Existing system	New and revised system
Leadership	<ul style="list-style-type: none"> <li>Operation of officer's job integrity contract system</li> <li>Management's ethics message, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Adoption of integrity information system for new contracted persons</li> <li>Institutionalizing the sending of CEO's integrity letter</li> </ul>
Ethical awareness	<ul style="list-style-type: none"> <li>Online/Offline ethical and integrity education</li> <li>E&amp;S decision-making system</li> </ul>	<ul style="list-style-type: none"> <li>Adoption of the integrity learning certification system</li> <li>Reorganization of self-diagnosis system of ethical awareness</li> </ul>
Ethics organization	<ul style="list-style-type: none"> <li>Operation of ethics helpers</li> </ul>	<ul style="list-style-type: none"> <li>Operation of integrity expert TF</li> </ul>
System improvement	<ul style="list-style-type: none"> <li>Ethical norm revision, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Revision of norms including code of conduct</li> <li>Implementation of autonomous system improvement tasks</li> <li>Establishment of integrity ombudsman system operation base</li> <li>IT expansion including building the integrity and ethics room</li> </ul>
Company-wide participation	<ul style="list-style-type: none"> <li>Implementation of ethics tasks by department</li> </ul>	<ul style="list-style-type: none"> <li>Measures to activate integrity suggestion system and help line</li> </ul>
External dissemination	<ul style="list-style-type: none"> <li>Campaign not to give and accept gifts during traditional holidays</li> <li>Social gathering with cooperating firms, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of campaign to build an integrity world</li> <li>Operation of integrity friends formation</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>Clean call monitoring</li> <li>Ethical attributes assessment in case of work evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Expansion and consolidation of internal assessment in ethical management (company-wide expansion / 1 point → 3 points)</li> </ul>
Incentives	<ul style="list-style-type: none"> <li>Ethical person award</li> </ul>	<ul style="list-style-type: none"> <li>Raising the internal reporting reward for public benefits (KRW 200 million → KRW 2 billion)</li> </ul>

## Ethical Management

# 3

### ● Protection of Whistleblower for Public Benefits and Reward System Operation

KDHC operates reporting regulations and system specifying the reporting obligation, method, procedure for handling employee's corruption acts, and reporting person protection and reward responsibility. Internal employees can report corruption acts through the cyber indictment center, visit, mail, fax, and email and receive up to KRW 2 billion in reward.

### ● Receipt of reports on irrationalities through cyber Shinmoongo from our homepage

KDHC operates a cyber Shinmoongo on its homepage so that external people can report corruption and budget waste issues related to KDHC. People can report through various channels such as telephone, fax, and email.

### ● Clean card system operation and electronic bid activation

KDHC operates a system through which fund settlement is suspended when corporate card use is inappropriate. Through the real name system of corporate card, we ensure transparency of budget execution. In 2010, we revised the "Corporate Card Management Guidelines" and precisely established the punishment criteria for the unlawful use of corporate cards. This way, we consolidated the ethical attributes in budget execution and accounting transparency.



### Revision of Regulations to Boost Ethical Management [Oct. 2010]

Regulations	Purpose of Revision	Summary of Revision
Ethical regulations	Enhance ethical management values	· Specification of ethical regulations as top regulation
Regulations on internal public benefit reporting person protection and rewards	Activate internal public benefit reporting	· Raising the reward for reporting: KRW 200 million → KRW 2 billion · Extension of reporting period: 2 years → 5 years
Reward and punishment	Penalize people causing irregularities	· Limiting dismissal at one's own request against a person under investigation due to alleged irregularities
Corporate card management guidelines	Consolidate transparency of accounting	· Stipulation of criteria for punishment for illegal use · Addition of types of corporate card use limit

### Status of Ethical Education in 2010

Category	Details
Special lecture on integrity by touring branches	CEO's special lectures on ethics and integrity upon auditor's branch touring (22 sessions)
Education to nurture ethical helpers	Education to nurture ethical helpers and integrity experts (28 people, December)
Cyber ethical education	403 people received ethical education (16-hour course for 4 weeks in July)
Education on code of conduct	Education on code of conduct focusing on job training (10 sessions, 167 people)
Integrity learning certification system	Integrity learning by branch organized by ethical helpers (62 sessions, 106 hours)
Integrity discussion meeting	Searching hazardous factors affecting integrity and discussing measures for improvement (all branches, September)

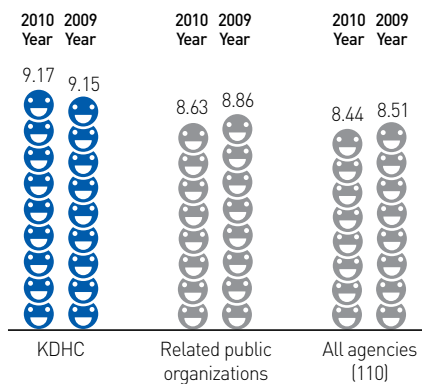


Cyber Shinmoongo on homepage

# Ethical Management

# 4

## Results of Public Agencies Integrity



Group Citation

### ● System operation and culture dissemination campaign for the integrity advancement

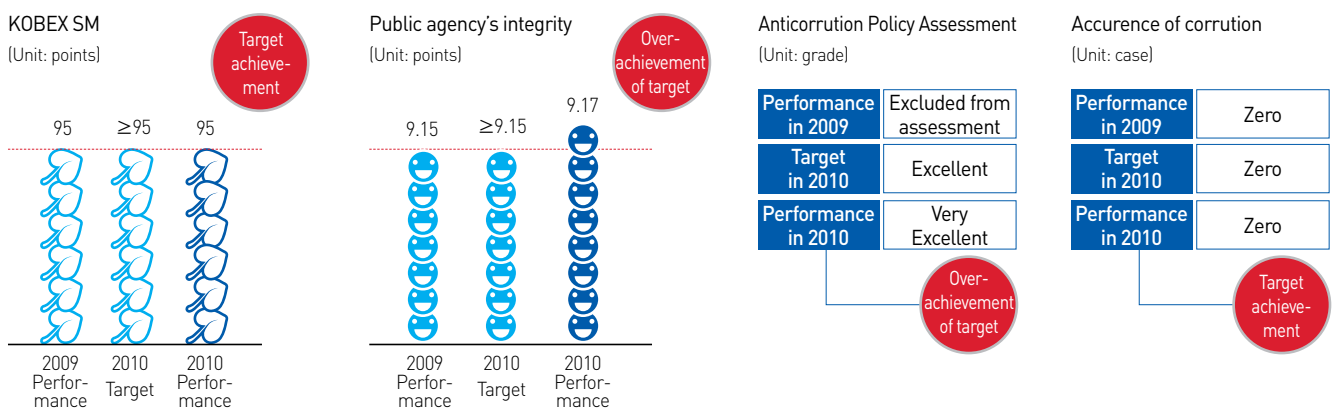
KDHC operates an Ethical Management Committee (in charge of anticorruption TF as well) consisting of KDHC's officers, external people, and employee representatives by rank. In addition, we have developed frequent routine audit and information system, and we promote zero corruption KDHC. This way, we continuously consolidate our efforts to enhance integrity. By organizing the District Heating Integrity Friends with the participation of our employees, community residents, and partner firms, we spearhead the dissemination of an integrity culture including jointly carrying out integrity campaigns along with an integrity declaration ceremony. As we operate the internal management evaluation system paying differential performance-based pay by evaluating management performance each year, we measure irregularities targeting each department of the head office and each branch. The department (branch) where irregularities occurred receives a lower score in management evaluation and consequently suffers disadvantages.

### ● Received Prime Minister's Group Citation in the Corruption Prevention Sector

KDHC received the prime minister's citation in the corruption prevention sector in the "3rd People's Shinmoongo Awards held by ACRC. The Awards aim at rewarding institutions and people that/who actively contributed to anticorruption/integrity culture dissemination along with the solution of people's difficulties in various social areas.

KDHC was named very outstanding agency -- which is the top rank in the public agencies' corruption prevention policy assessment in 2010 -- and excellent agency in integrity measurement. KDHC is committed to striving to help build a society with integrity by consistently carrying out the integrity policy based on the ethical management system.

## Quantitative Performance of KDHC's Ethical Management

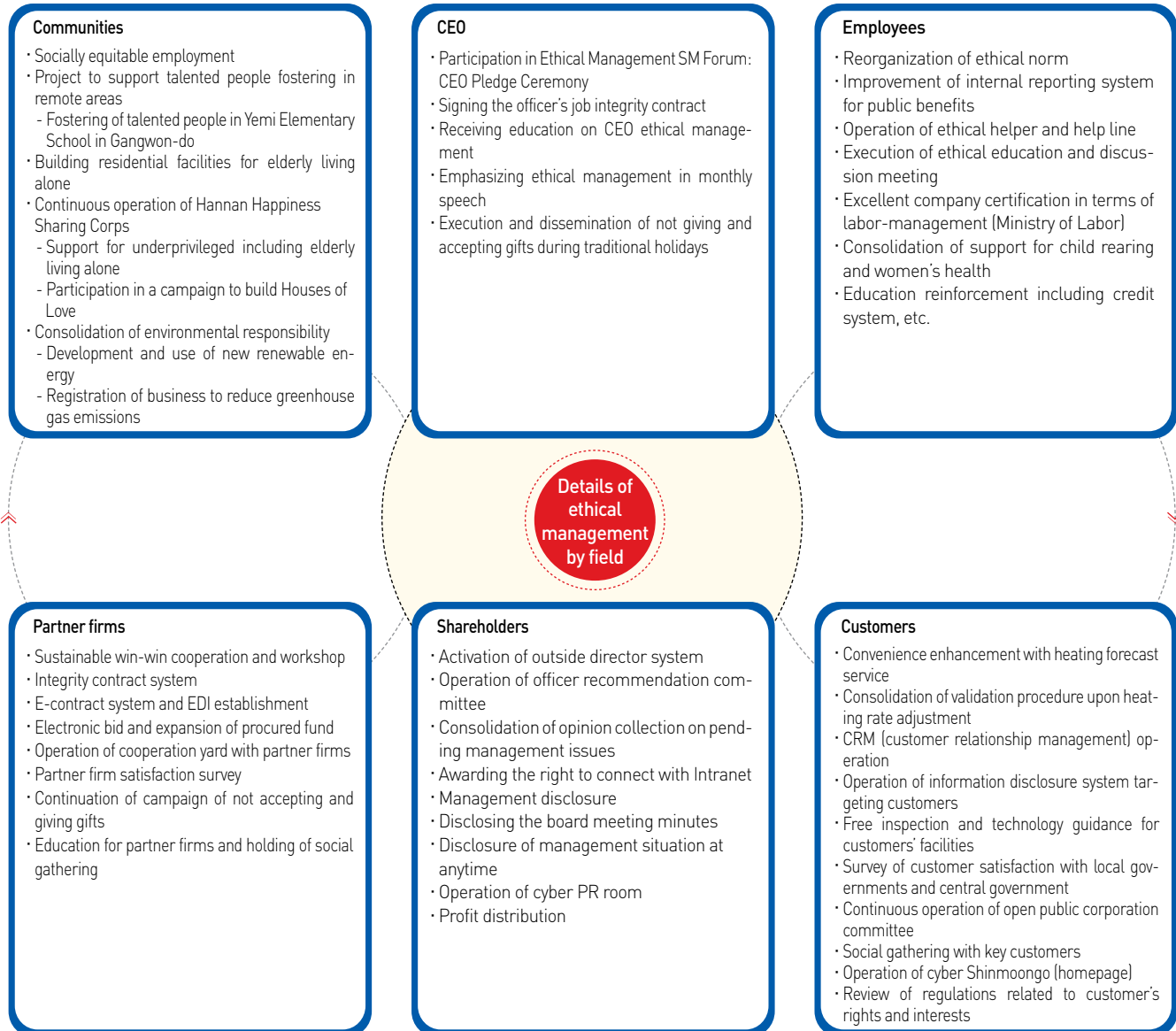


# Ethical Management

## ● Ethical Management Program for Stakeholders

KDHC operates segmented ethical management programs to meet stakeholders' expectations and demand level and enhance stakeholders' ethical management action level. We consolidate partnership with our stakeholders and put ethical management into practice through various ethical management programs.

### Ethical Management Activity Programs



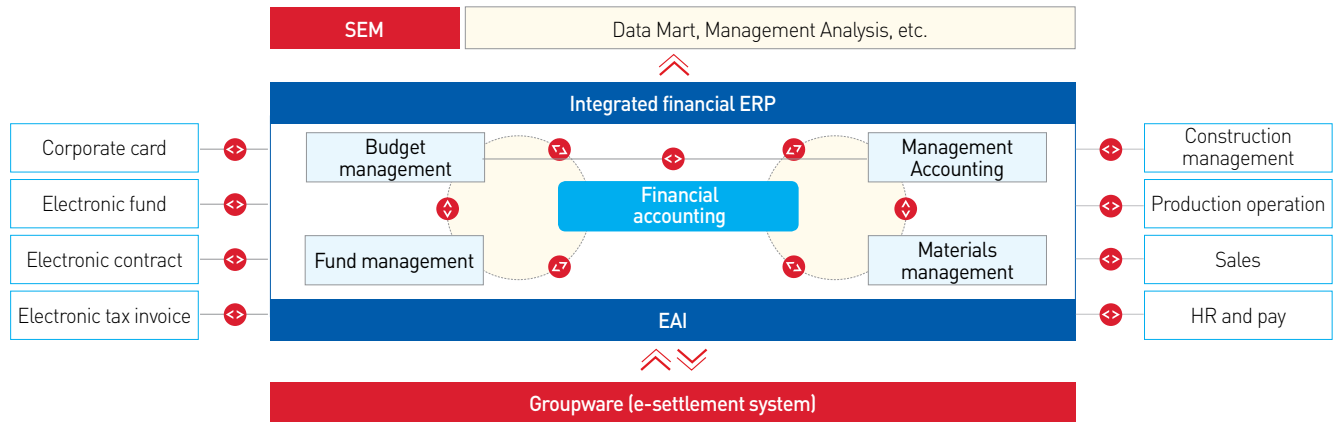
# Transparent Management

KDHC continuously strived to improve various systems and institutions for transparent and fair management in 2010 as well. We are committed to growing as a reliable, trusted company through active transparent management.

## ● System improvement to consolidate financial soundness

KDHC prepared an institutional vehicle for the consolidation of financial structure soundness by organizing the financial management committee with external experts for decision making on important issues such as fund size, procurement period, selection of securities firms, and foreign currency-denominated bonds related to the second-half fund procurement method for 2010.

### Financial ERP System



## ● Establishment of Initial Public Offering (IPO) IR System

KDHC enhances corporate value through IR system establishment and activity consolidation according to IPO. We have realized the effect of raising the stock price by contributing to corporate value enhancement including strategic strategies and DB management for corporate development via the development of an IR system.

### Financial Budget Management Improvement Effects According to the ERP Adoption

<b>Financial accounting</b>	Establishment of monthly closing account process and development of international accounting standard system
<b>Management accounting</b>	Systematized cost management and embodiment of profit and loss analysis process
<b>Budget management</b>	Embodiment of standardized budget management process
<b>Fund management</b>	Securing preciseness of fund balance information
<b>Materials management</b>	Integrated management of receipts and disbursements process, ensuring the preciseness of materials demand and supply information
<b>Contract management</b>	Securing linkage with the relevant systems and expansion of online contract business

### IPO IR System

Category	Details	Achievements
Company presentation	• IPO and performance release	• Two domestic presentations
One-on-one interview	• Interviews with visiting institutional investors	• Three sessions weekly on the average (125 sessions in all)
IR EXPO	• Interviews with domestic and foreign investors	• Annually (participation each year)
NDR	• Institutional investors' visit	• Frequently (11 institutions in all)

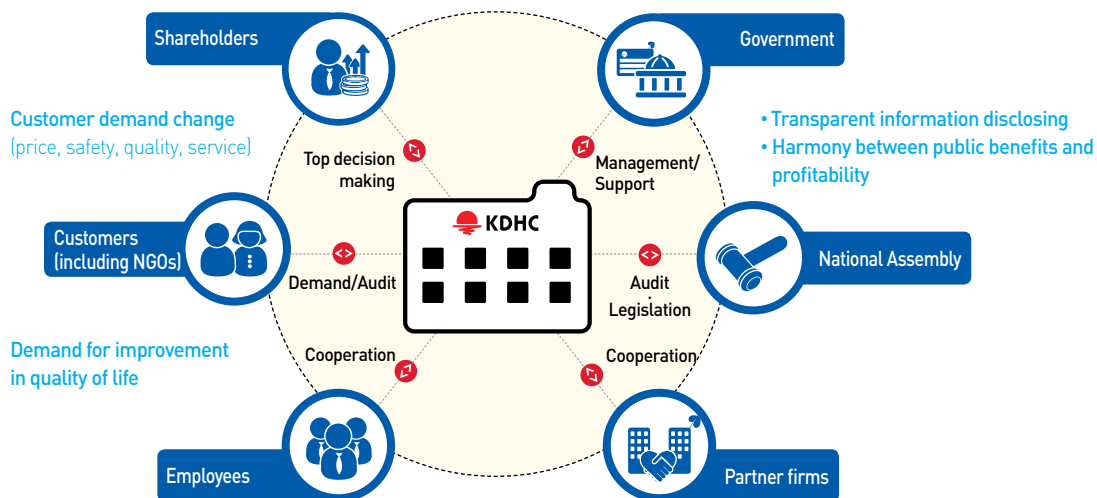
\* SAP ERP (SAP Enterprise Resource Planning):  
SAP is a German ERP software company. ERP is a program to manage an enterprise in an integrated manner and enhance management efficiency through the effective use of management resources.



# Stakeholder Communication

1

## Stakeholders of KDHC



### Internal Stakeholders' Communication Channel

Category	Performance	Main function
Workshop for management	Anytime	Establishing next year's business plan and pursuing it
Conversation between the CEO and employees	Anytime	Listening to employees' grievances and suggestions
Monthly meeting	Monthly	Sharing management strategies and material pending issues with all employees
Labor-management council	4 sessions	Consultation and handling of issues of interest through labor-management council
Operation of daily communication system	Everyday	Sharing of pending information between labor and management
Direct conversation between the CEO and the labor union leader	Anytime	Explanation of management situation and opinion exchange related to collective bargaining
Labor-management workshop	Once (October)	Seeking measures to solve key pending issues including advancement of industrial relations
Labor-management field seminar	Once	Field seminar, listening to grievances

### • Two-way communication for sustainability management

KDHC operates various communication channels with stakeholders from all walks of life, listens to a variety of opinions, and reflects them on sustainability management. Based on internal sympathy formation, we have established opinion collection sharing channels tailored for each stakeholder, i.e., employees, customers, shareholders, government, and partner firms, centered on value dissemination conveyed to external stakeholders. Through this, we make great efforts for two-way communication to be carried out actively, such as diffusing the KDHC philosophy and values, and listen to stakeholders' opinions and requests.

### • Value sharing of internal stakeholders and operation of dialog channel

KDHC held the CEO and officers' road show for each branch to encourage the agency head's autonomous management contract. Through the mid- and long-term management strategy handbook and pocket memo of strategies, we actively lead the dissemination of business philosophy and values. The operation of dialog channel between KDHC and employees becomes the foundation through which discussion and cooperation can be carried out together to pursue the development direction of KDHC. KDHC ensures participation of and sharing with all employees as a rule when establishing company values. In the case of management meeting and establishment of strategy to shape the CEO's management philosophy and detailed strategies, we help organization members form a bond of sympathy through their active participation. We also conducted questionnaire surveys to set KDHC's core values in June 2010 and reflected employees' various opinions and enhanced execution capabilities.

## Stakeholder Communication

# 2

### ● Value sharing with external stakeholders

KDHC develops communication channels for smooth opinion exchanges with various external stakeholders. We identify sustainability trends through the sustainable report and strategically respond to stakeholders' opinions.

KDHC releases management disclosures to various stakeholders including customers, shareholders, government, partner firms, and communities regularly or frequently. Through a total of 21 annual management disclosures including 5 regular disclosures in April and October each year and 16 disclosures that are frequently announced within 14 days of occurrence of any management issue, we strive to let them know about our company value with added transparency and reliability.

Based on the Act on the District Energy System Supply Business, we establish mid- and long-term objectives every 3 years according to 10-year mid- and long-term management strategies. After drawing up 3-year mid- and long-term management objectives, we submitted them to the Strategy and Finance Ministry and Knowledge Economy Ministry in April 2010 following resolution by the board of directors. KDHC will strive to become a sustainable energy company that develops further based on mid- and long-term management objectives.

### ● Stakeholder communication channel

KDHC endeavors to establish a management system through social gatherings with partner firms as well and listens to their difficulties and suggestions. Five social gatherings were held including a presentation in March 2010 targeting private material suppliers and KDHC bid-participating companies. With the activation of communication through the e-contract system, a win-win cooperative system with partner firms was built, and support for bid participants was reinforced.

We also carry out the policy of "Mutual Growth" with small and medium businesses (SMBs) through a practical contract management education program, which forms part of the SMB supporting education.

We communicate with stakeholders from all walks of life through media/press, at the same time hosting intermittent social gatherings all-year round via access to each medium. By implementing social gatherings for business philosophy diffusion and PI enhance

ment, we actively collect various stakeholders' opinions and utilize them for our development. In addition, we share values with collegians, the leading public opinion formation class, by commissioning them as collegian PR ambassadors.

They act on/offline, participate in KDHC's PR plan establishment, social volunteering activities, and various events, and make efforts for community development together with KDHC. Through all this, high interest in KDHC and active opinion exchange are ensured. All in all, they help KDHC endear itself to various stakeholders as an amicable company.

#### \* PI (President Identity):

Various marketing activities focused on the company's president; PI refers to the top management's image.

### Status of Operation of Stakeholders Value Sharing Dialog Channels

Official press conference	<ul style="list-style-type: none"> <li>Reporters to the Ministry of Knowledge Economy</li> <li>Reporters stationed in the Seongnam region</li> <li>Reporters of energy journals or newspapers</li> </ul>
Unofficial press meeting	Broadcasting <ul style="list-style-type: none"> <li>Reporters of KBS News HQ, MBC News Bureau, SBS Scheduling HQ</li> <li>Reporters of YTN, MBN, Hankyung TV</li> </ul>
	Newspaper <ul style="list-style-type: none"> <li>DongA Ilbo, Maeil Business Newspaper, Munhwa Ilbo, Hankyoreh Newspaper, Yonhap News Neil Newspaper</li> </ul>
Relevant institutions of the media/press	<ul style="list-style-type: none"> <li>Office of the Spokesperson of the Knowledge Economy Ministry</li> <li>PR Officer, Office of Seongnam City Hall</li> <li>Korea Press Foundation</li> <li>Kobaco</li> <li>Broadcasting companies including KBS, MBC, SBS</li> </ul>
Stakeholders in the PR area	<ul style="list-style-type: none"> <li>Announcers Association, Reporters Association, Broadcasting Camera Reporters Association, and other PR agency</li> </ul>



Launching ceremony for Collegian PR Ambassadors of KDHC

# Materiality Evaluation and Core Issues

KDHC sets the direction of sustainability management, evaluates the firm's importance, draws core issues, and puts sustainability management tasks into practice to become a top-tier energy company boasting of sustainable competitiveness at the company-wide level. We also collect the various opinions of stakeholders and reflect them on overall management activities.

## Materiality test process

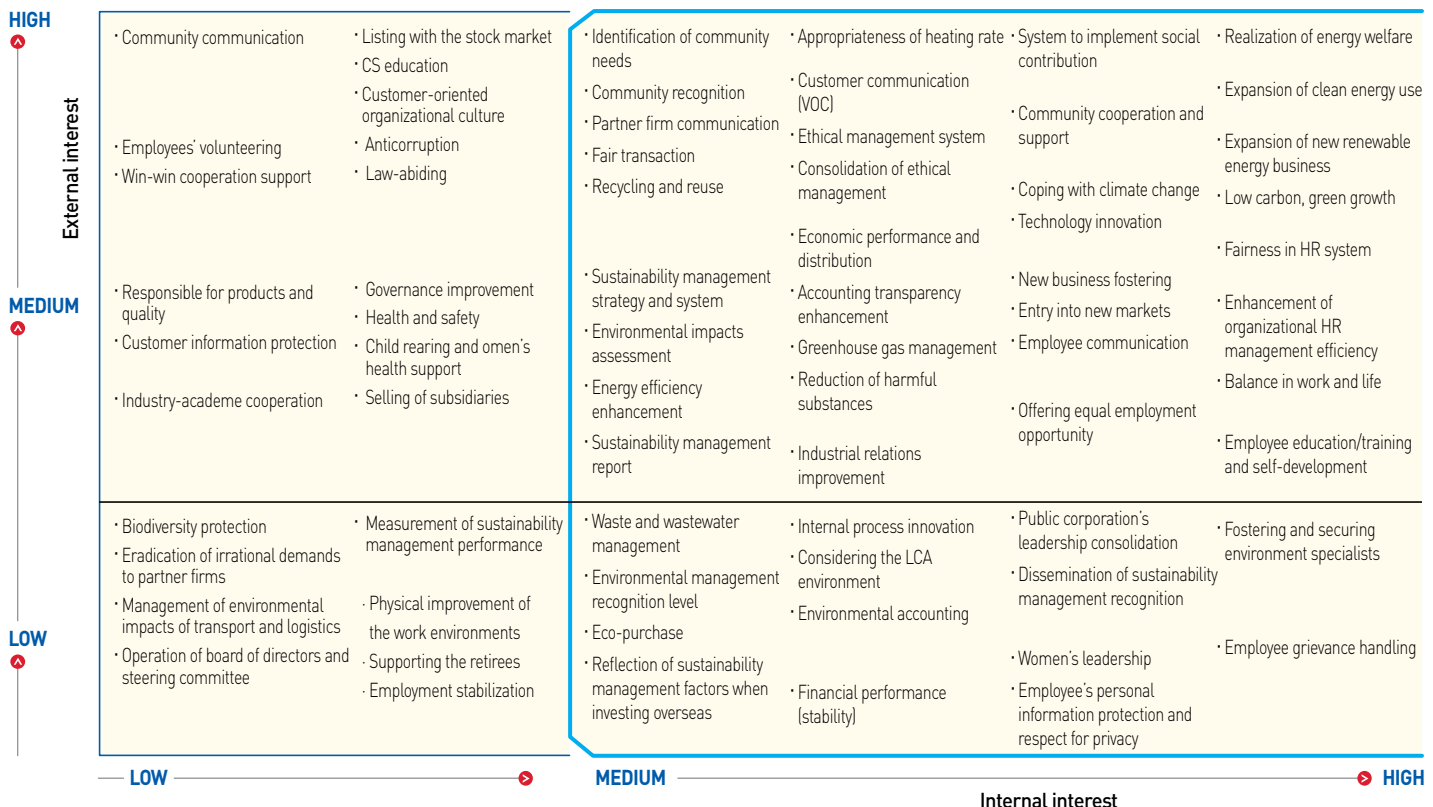
Test 1	Internal policy assessment Policy and criteria evaluation data
Test 2	Analysis of direct/indirect economic effects Key performance indicator (KPI)
Test 3	Review of domestic and international norms, criteria, laws and regulations, and global standards
Test 4	Progress of stakeholders' participation Questionnaire survey (internal and external stakeholders)
Test 5	Benchmarking Benchmarking advanced companies in sustainability management
Test 6	Media search Search main press releases (Jan. - Dec. 2010).

### ● Materiality evaluation process

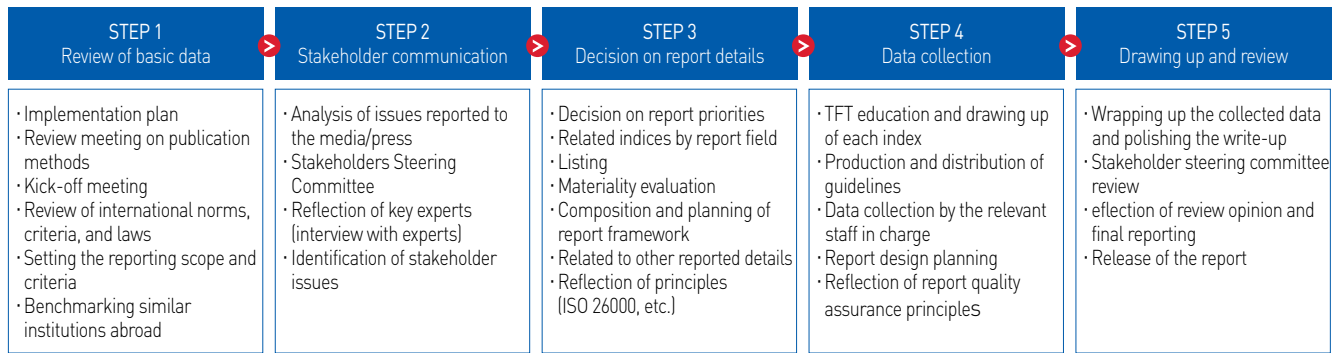
KDHC continuously monitors KDHC-related details exposed to the media and classifies and analyzes sustainability management issues. Using our online VOC system, we collect and manage the major stakeholders' grievances and interests.

Through sustainability management-related associations and institutions participated in by KDHC, it acquires information on domestic and international sustainability management trends and cyclically collects information by accessing the main institutions' online homepages. The information acquired through such process is classified into internal and external trends and stakeholders' perspectives and used as basic data for the significance test. For core stakeholders, we draw core issues through a separate questionnaire survey and apply them to the field.

## Materiality Test Results



**Procedure for Report Publication**



● **Questionnaire survey**

KDHC communicates with stakeholders such as customers, employees, partner firms, and community people through various channels, reflects opinions and interests via multiple stages, and enhances the credibility of sustainability management. This questionnaire survey was conducted for about one month from April 25 to May 20, 2011. Readers can compare and analyze the 2010 and 2011 questionnaire survey results by stakeholder and check our sustainability management, which has improved further compared to the previous year.

● **Media analyses**

The number of exposures to media was 955 cases for the past 3 years. The most important issue was KDHC's business expansion abroad and listing with the stock market. Articles dealt with consumer issue on heating and cooling rates, customer satisfaction, tree planting event for energy saving and reduction of CO<sub>2</sub> emissions, and business implementation for efficient energy use. The results of media analysis have been reflected on sustainability management strategies and various tasks. We will make more efforts to realize a sustainable company that develops further by reflecting the opinions of various media/press and stakeholders.

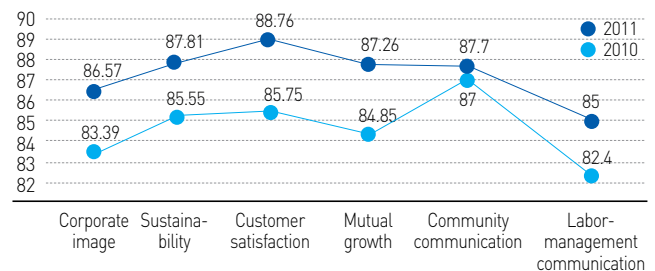
**GRI details definition principles**

- Materiality
- Stakeholder engagement
- Sustainability context

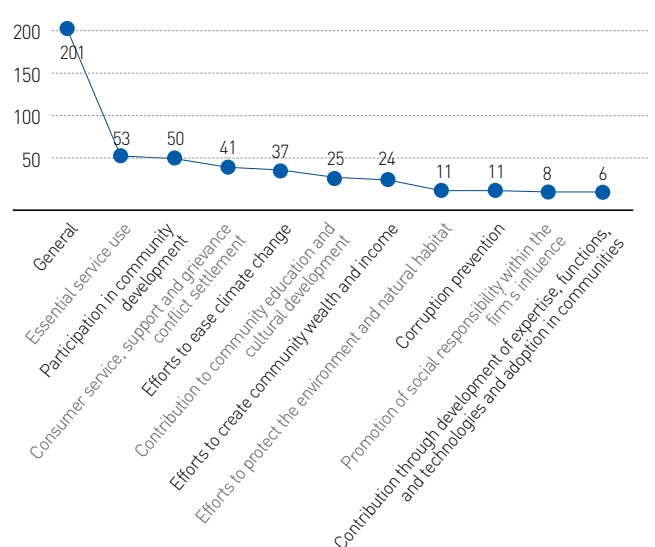
**GRI quality assurance principles**

- Balance
- Comparability
- Preciseness/Timeliness
- Clearness/Credibility

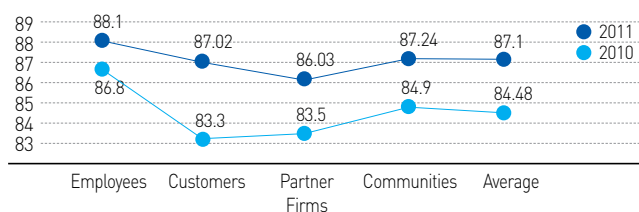
**Yearly Comparison Table of Sustainable Areas' Scores**



**Number of exposures to the media in 2010**

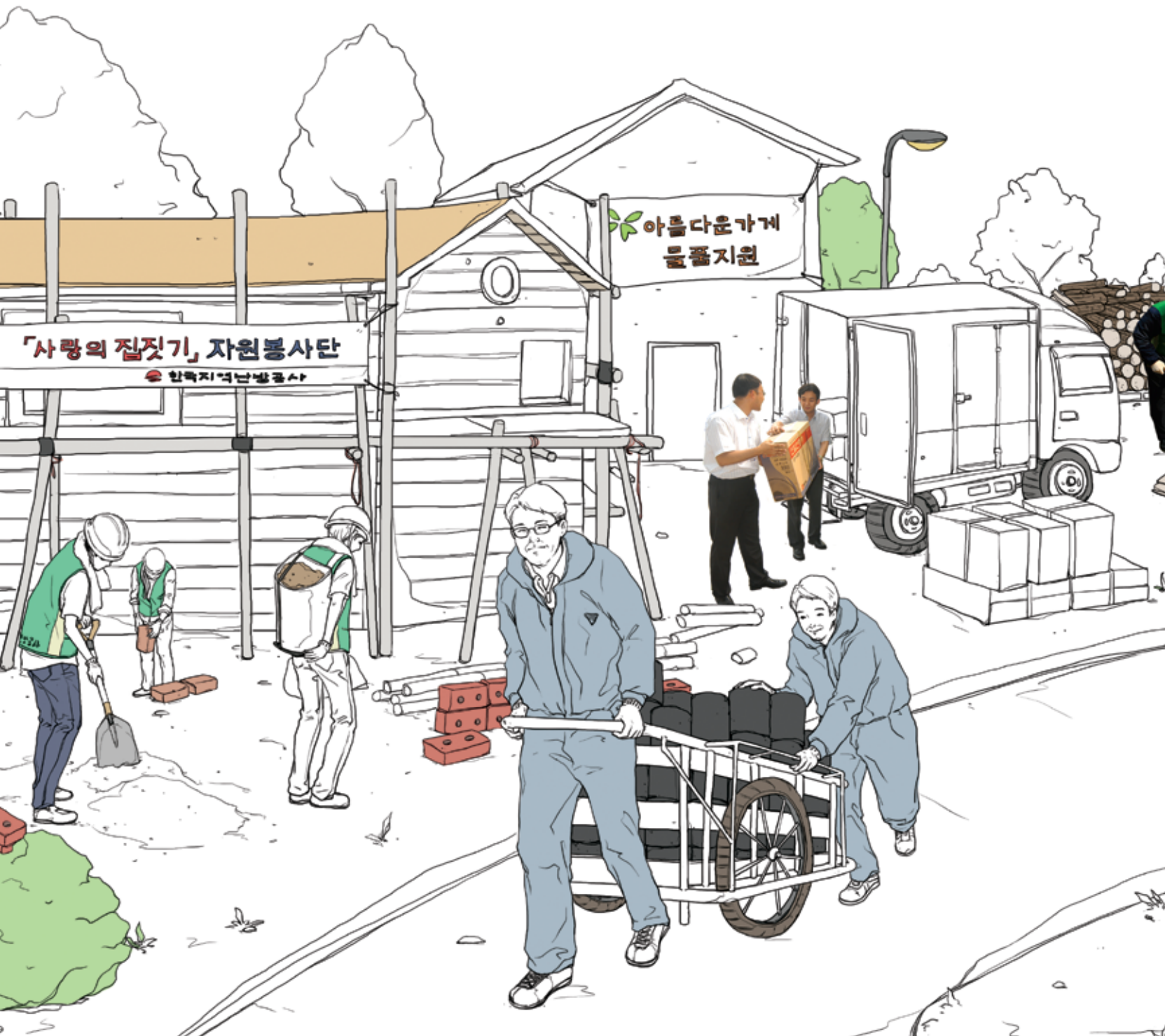


**Yearly Comparison Table of Stakeholders' Scores**



# Smart Dream

KDHC fulfills its social responsibilities to embody the future society for "Happy Energy World." We make efforts to contribute to communities through financial and non-financial forms of assistance such as social contribution projects and volunteering for the socially underprivileged, balanced development of communities, and employment expansion.



## Interview

Nun, Philippa (ARIUM) \_ Social responsibility sector

I think KDHC's district heating and cooling business is an energy business that is essential in communities. With high-quality energy supply, communities seem to be happier. Looking into various energy businesses and environmental management cases, I believe KDHC is a company with potential for sustainable development, and this ranks high in my book. KDHC's active social contribution activities are regarded as those required for community development. I hope KDHC adequately collects various stakeholders' opinions, contribute to community development, and grow as a warm-hearted energy company through its long-term and sustainable activities.





# The World KDCH Dreams of

KDHC continuously carries out social contribution activities to fulfill its responsibility and role as a general energy company. As a typical public energy corporation, we strive to secure the energy welfare of the underprivileged, help neighbors improve their living, and fulfill our social responsibilities. We will deliver happy energy, dreaming of a world where all of us can smile brightly and live happily.

## ● KDHC's social contribution strategies

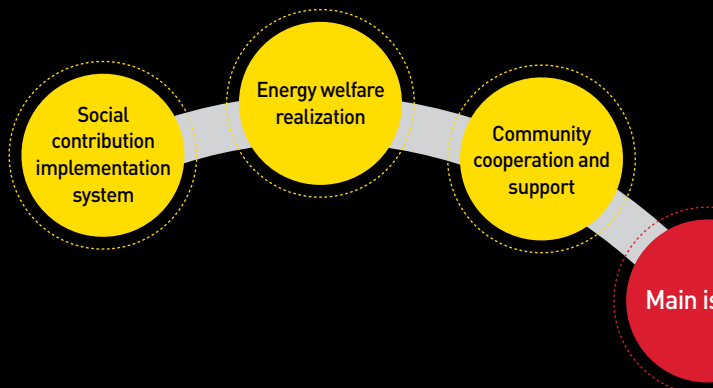
KDHC has selected three main sectors for the implementation of systematic social contribution activities: business sector, community sector, and volunteering sector. To ease economic bipolarism and build a world where everyone can live happily, we implement energy welfare more intensively for the energy-alienated class.

## ● Department in charge

PR Team: Social contribution, media/press and advertisement

## ● Social contribution carried out all together

With regard to KDHC's social contribution, we implement social contribution activities by sector including energy welfare under the vision "We build a happy energy world together with communities." To build a society where everyone can live happily, we carry out the following: Winter Spending Campaign with Love and Heating Rate Reduction and Exemption Project in the business sector; Abandoned Mining Village's Talented People Nurturing Support Project and Sisterhood Relations Establishment based on the One Village, One Company Campaign in the community sector, and; Volunteer service and environmental protection activities of Happiness Sharing Corps, a volunteering organization of the head office and branches, in the volunteering sector. We carry out continuous and various social contribution activities by sharing our labor and what we have for those who truly need help in society.



Social Contribution Vision and Mission	
Vision	We build a happy energy world together with communities.
Mission	KDHC's employees put sharing management into practice to fulfill the company's responsibilities as a public corporation and build a society where everyone can live happily together.
Slogan	"Joy of sharing, warm-hearted world"









# Building a Happy Energy World

KDHC consistently strives to secure energy welfare as a public energy corporation including heating rate reduction and exemption for the underprivileged and heating expenses subsidy and support for maintenance/repair of heating facilities in winter.

## ● Heating rate reduction and exemption

KDHC has been implementing heating rate (basic rate) reduction and exemption for social welfare facilities as well as the underprivileged residing in rental homes since 2006. We began heating rate support for basic living allowances beneficiaries, disabled people, patriots, and multiple-child households as the first district energy business to do so in March 2010. We also simplified the application procedure of the service through the simpler online application.

We provided support equivalent to KRW 2.9 billion to 118,000 households or 10.3% of the total households that we supplied with energy in 2010. The number of supported households went up 182.3%, and the amount of reduction and exemption rose 282.4%. This service is in partial fulfillment of our commitment to support the underprivileged whose difficulties are exacerbated by income bipolarization and to expand social contribution activities to communities.

**Number of households receiving heating rate reduction and exemption and amount**

Classification	2008	2009	2010
Number of households (1,000 households)	63	85	118
Amount (KRW million)	1,660	1,958	2,938

## ● Campaign to Spend Winter with Love (subsidizing heating expenses and supporting the maintenance/repair of heating facilities)

KDHC has been implementing the Campaign of Heating Expenses Support with Love each year since 2006 to subsidize the heating expenses of the underprivileged in winter. In 2010, this campaign was transformed into a Campaign to Spend Winter with Love, not only providing heating expenses subsidy but also supporting heating facility maintenance/repair. We signed an agreement with Good Neighbors, a corporation specializing in social welfare, to continue the campaign. We also began a story contest in October 2010 to complete heating facility maintenance/repair before winter since long-term construction is required. We launched a pilot campaign

centered on the Seoul Metropolitan Area, and we plan to expand the campaign further.

For the Campaign of Heating Expenses Support with Love, heart-breaking stories of low income homes and social welfare facilities suffering from difficulties due to lack of heating money for winter were received on MBC Radio's Women's Era. We carried out due diligence by visiting them with Good Neighbors people and selected some of them who urgently needed our help. This way, we provided heating expenses support.

**Institutions Engaging in the Campaign of Heating Expenses Support with Love and Heating Facilities Maintenance/Repair Project**

Institution	Role
KDHC	Supervision of campaign including support for facility maintenance/repair, receiving stories thru homepage, visiting for site due diligence together with Good Neighbor people
MBC Radio's Women's Era	Story receipt thru board, news coverage, and broadcasting (guide to purpose and campaign, story introduction)
Good Neighbors	Receipt of stories, follow-up management after due diligence of site
Happy Bean	Online PR

KDHC provided heating expenses support by searching for people who need actual help from among the stories received: a household wherein the oldest son drowned in a river and the father was hardly home since he was an alcoholic and heating was consequently impossible; welfare facilities for five girls who were separated from their home due to violence and abuse; heating facilities were out of order due to flooding, the household head's right leg was amputated, and members of the household earned a living by collecting waste and other used items; the husband committed suicide due to depression, the wife leads a hard life because she has no income and the child just had polio surgery.

In 2010, KDHC expanded the support to heating facility maintenance/repair with comprehensive assistance for winter, in addition to the campaign of heating expenses support with love. Heating facility maintenance/repair was carried out more effectively since we got to use our know-how and resources.

Among the support objects were local children's centers run with their own money without treasury subsidies, resting place for foreign workers and Korean nationals from China, non-authorized alternative schools, flood-damaged welfare facilities for disabled people, and women victims of violence counseling centers operated under inferior environment and mostly without subsidies. We provided support through heating equipment and electric panel installation and repair and insulation construction so that they can have a warm winter.

KDHC has offered fundamental, genuine support to secure the welfare of the energy-underprivileged through the campaign to spend winter with love, in addition to district heating supply via the heating rate reduction and exemption service. We expanded support to basic allowances beneficiaries, disabled people, wounded veterans, and households with 3 children or more from the support for the existing rental homes and social welfare facilities. Through the campaign to spend winter with love as expanded from the campaign of heating expenses support with love, we have established more long-term measures for underprivileged neighbors to spend a warm winter by assisting in heating facility maintenance/repair.

#### Status of Support for the Campaign to Spend Winter with Love in 2010

Category	Object	No. of beneficiaries	Subsidy amount (KRW million)
Heating expenses with love	Individuals: 58 households	58	35
	Facilities: 51	70	70
Subtotal	109	1,405	105
Facilities maintenance/repair	Facilities: 37	903	204
Total	146	2,306	309

#### Status of Subsidies for the Campaign of Heating Expenses Support with Love and Campaign to Spend Winter with Love for the Past 3 Years

Category	2008	2009	2010
Subsidy size (KRW million)	150	100	309
Support object	134	71	146
Facilities	72	30(KRW 64 million)	88(KRW 274 million)
Households	62	41(KRW 36 million)	58(KRW 35 million)





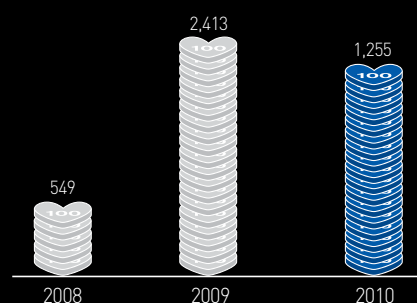
# Happiness Sharing Corps of Hope

KDHC founded the Happiness Sharing Corps through the voluntary participation of employees. It is actively engaged in volunteering activities in three sectors – support for the underprivileged, environmental protection, and educational support by the head office and branches – according to the community features.

## ● Happiness Sharing Corps of Hope

KDHC's employees carry out sharing activities through the Happiness Sharing Corps, a volunteering organization participated in by the employees themselves. The Corps is supporting the underprivileged and promoting environmental protection and education according to the community features. The Happiness fund for the corps' activities is divided into the Happiness Sharing Fund, which is procured by deducting the portion decided by members from their wage/salary, and Happiness Matching Fund provided by KDHC through the one-to-one match grant.

Social contribution amount for the past 3 years  
(Unit: KRW million)



Fund of Happiness Sharing Corps for the Past 3 Years (Happiness Fund = Happiness Sharing Fund + Happiness Matching Fund)

Period	2008		2009		2010	
Happiness fund	Happiness sharing fund	Happiness matching fund	Happiness sharing fund	Happiness matching fund	Happiness sharing fund	Happiness matching fund
	101,880	101,880	101,616	101,616	102,675	102,675
<b>Total</b>	<b>203,760</b>		<b>203,232</b>		<b>205,350</b>	

## Details of Happiness Sharing Corps by KDHC Branch

Category	Details
Head Office	Regular sponsorship of local children centers, Habitat Volunteer Service for Building Houses of Love, delivery of briquette and winter supplies for the underprivileged within Seongnam City and facility maintenance/repair, regular patronage of foreign workers' facilities, support in the form of student uniforms for orphaned families, regular volunteering activities for ARIUM (welfare facilities for elderly living alone), assistance in the form of winter jumpers for multicultural families' chorus
Goyang Branch	Regular sponsorship of children's foundations, regular sponsorship of children's fund for abused children, cleaning and birthday party in welfare facilities for disabled people, support in the form of lunch for middle school students belonging to the underprivileged class, assistance to local children's center facilities
Gangnam Branch	Donation and rice support for underprivileged households, winter Kimchi delivery for social welfare facilities, support for low income bracket children's job experience, assistance in the form of Onnuri gift voucher to be used in traditional markets
Bundang Branch	Caring service for elderly living alone, support for senior citizens' welfare facilities events
Suwon Branch	Subsidy of living expenses and home study materials for orphaned families, assistance in the form of free meal service for the homeless, subsidy of recuperation expense for the underprivileged, and snack making and meal service support for local children's centers
Yongin Branch	Side dish making and delivery packing for welfare facilities for disabled people, river cleaning and protection event of the one river, one company campaign
Daegu Branch	Subsidy of meal expenses for elementary students from orphaned households, event to share briquettes, Santa Clause event on Christmas Day, maintenance/repair of heating facilities for local children's centers, sponsorship of theme travel for youth from low income bracket households
Cheongju Branch	Swimming lessons by inviting children from low income households, assistance in the form of educational materials and uniforms (middle school students) for low income households' youth, sponsorship of charity concerts to procure funds for living expenses for disabled people, support for elderly living alone, Ttasomi Autumn concert, Santa Expedition on Christmas Day
Gyeongnam Branch	Regular sponsorship of children's foundations, assistance in winter preparation including local children's centers and welfare facilities for disabled people, support for events for multicultural families
Hwaseong Branch	Visiting and offering snacks for children's protection centers, wallpapering and flooring for senior citizens' centers, facility support including low wooden benches installation, regular sponsorship of low income bracket within the relevant district and visiting and living supplies support, sponsorship of spring excursions of senior citizens' colleges, sponsorship of senior citizens college programs and meal services, briquette delivery and lunch offering for low income bracket
Paju Branch	Regular volunteering activities and making of fermented soybeans for senior citizens' welfare facilities, making winter Kimchi, subsidy for living necessities, subsidy of monthly meal expenses for local children centers and cultural activities invited by a branch, visiting and volunteering activities and living expenses subsidy for children from single-parent households
Mapo Branch	Regular subsidy of living expenses for children without families, sponsorship of hopeful post box and nursing business, senior citizen's birthday, and Parents Day parties, assisting in side dishes and winter Kimchi making for the underprivileged, sponsorship of Pollack volunteers group of Mapo Love, free medical checkup for the elderly

\*1:1 Matching grant : KDHC pays the equal amount regularly donated by employees through 1:1 matching.

- ① Volunteering activities to ensure warm winter
- ② View of ARIUM



### ● Volunteering activities to ensure a warm winter

The Happiness Sharing Corps of KDHC carries out volunteering activities to ensure a warm winter. With around 50 employees participating, the Corps carried out in 2010 the sharing of winter Kimchi with love at ARIUM (welfare homes for elderly living alone), delivery of heating goods and living necessities to multicultural families and North Koreans residing in South Korea, improvement of residential environment targeting the low income senior citizens, and provision of heating goods.

### ● Regular volunteering activities of ARIUM for elderly living alone

KDHC, Seongnam City, and Kumho Asiana signed an agreement for social contribution and built ARIUM, the welfare home for the elderly living alone, for the purpose of looking for a fundamental measure that will allow the elderly to spend their old age comfortably as part of volunteering activities to ensure a warm winter as carried out each year.

Implemented in three-sector mode -- a new concept for social contribution activities by private sector, public sector, and government ? the project was managed as a consortium type wherein Seongnam City took care of design and supervision and paid construction expenses and Kumho Asiana paid part of the construction expenses. In ARIUM, there are 19 senior citizens living alone. The Happiness Sharing Corps of the head office visits ARIUM every third Wednesday of the month and continually carries out tailored volunteering activities reflecting the tenant senior citizens' needs.

\* ARIUM : This is the name adopted following a public naming contest in 2008 and is short for "Our beautiful and happy nest." ARIUM in English means nest and space.

#### Interview with members of the Happiness Sharing Corps

Members of the Goyang Branch visit The House of Angels (welfare facilities for disabled people) every second Thursday of the month and help in washing and meal preparation. The Branch invited 19 people from the House of Angels to the branch at the end of 2010 and held Christmas and birthday parties.

"I feel sorry that some friends who are sick could not come over even though they were invited. Still, I was so happy that many friends visited the branch and we had a good time together."

#### Interviews with Cheongju Branch members of Happiness Sharing Corps

The Cheongju Branch has a tie-up with the Sannam General Social Welfare Center, which has been operating an after-school class for low income bracket children since 2005. The children are invited to the branch semiannually, and swimming lessons are offered by opening the swimming pool. The number of children who visited the Cheongju Branch was about 50 including elementary school students and mentally disabled adolescents.

"I am happy to see children use and enjoy the facilities within our branch. Their visit is truly good and worthy if the children make fond memories of KDHC."





## A World Where All Become One

KDHC does its best to transcend regional and cultural barriers and contribute to win-win development between cities and provinces through the signing of the one village, one company sisterhood relations agreement with Shinheung 2-ri, Namwon-eup, Jeju and Jeungdo-myeon, Shinan-gun, Jeonnam and through active exchange with those villages.

### ● Support for Abandoned Mining Village's Talented People Nurturing

Concerning the support for the abandoned mining village's talented people nurturing, we signed a sisterhood relations agreement with Yemi and Bongyang elementary schools in Jeongseon abandoned mining villages, Gangwon-do. This way, we offer various forms of educational support to students with insufficient educational opportunities because of regional features.

KDHC formed the Yemi Guardian Angel Group, a volunteer organization for effective and continual support. The Yemi Guardian Angel Group consists of the "Yes I can Team," "CC Sympathy Team," "Remote Learning Support Team," and "IT Sharing Team" according to the sectors requiring support. Through this, we help in children's systematic learning. The guardian angel group played a role as mentor of life providing motivation, forming continuous ties with children along with invisible learning support.

The biggest need of children with difficulty accessing educational facilities? which are insufficient to begin with -- other than school, was English education. With the cooperation of Chuncheon YMCA, a civilian organization equipped with professional expertise in student English programs, we invited a native English teacher and held English conversation after-school class twice a week. We also opened an English camp during school vacations to supply high-quality teacher and educational program.

We set as basic learning objective "I can speak in English." The children's English proficiency improved remarkably over time. In fact, those children won many prizes in English Speech contests nationwide and obtained opportunities to visit the US and receive English education abroad as part of the privileges of prize winners. Many people took notice of the fact that an unknown school in Gangwon-do won almost all the prizes in national contests, a feat that city schools did not achieve. In 2010, the children won 3 grand prizes and 5 prizes of excellence in the Korean Students English Speaking Contest organized by the World Association for Art of Exchange Organization. In the 11th International English Contest, one Gold Prize was won by the Gangwon/Chungcheong Region.



### ● City culture experience by Yemi Elementary School students

KDHC provides city culture experiences by inviting Yemi Elementary School students each year. Through new cultural experiences, we invite 50 third ~ sixth graders in 2010 to help them nurture dreams and hopes and expand their vision and insight. They visited Seoul's typical streets such as Gwangwhamun, Cheonggyecheon, Myeongdong, and Namdaemun. They also experienced public transportation, watched children gain job experience in theme park, and participated in children's etiquette school education. The Yemi Guardian Angel Group and children formed many groups together for convenience in visiting various places and made good memories, experiencing various things together.

In addition, KDHC assists in remote learning programs monthly so that children can supplement their learning in all subjects. KDHC's volunteering club, "Steppingstone," continuously promotes exchanges and offers various assistances for Yemi Elementary School multicultural families' stable settlement given the recent rise in the number of those multicultural households.

### ● Support for the Tourist Information Board for Jeungdo Bridge and streetlights for mountain climbing path

As part of the one village, one company campaign, KDHC forged sisterhood relations with Shinheung 2-ri, Namwon-eup, Jeonnam and Jeungdo-myeon, Shinan-gun, Jeonnam and made active exchange. We have made efforts to transcend regional and cultural barriers and contribute to win-win development between cities and provinces. We set up tourist boards in Jeungdo-myeon, Shinan-gun and streetlights along the mountain climbing path for the village with which sisterhood relations have been established as part of the campaign. KDHC is implementing its new renewable energy business through solar energy power generation by setting up power generation facilities in an area spanning approximately 56,298 sqm in Jeungdo-myeon, after forging sisterhood relations with Jeungdo-myeon in 2007. We donated PCs, with our employees purchasing local specialties. This way, we have continued mutual exchange. Recently, Jeungdo Bridge was opened, and "2010 Easy Living City International Assembly" was held in Jeungdo; thus, the number of tourists increased. As such, we set up a solar energy-operated tourist information board at the entrance of Jeungdo Bridge and helped cement Jeungdo's status as a slow city. Likewise, along the Sangjeong-dong mountain climbing path as one of the typical tourist courses in Jeungdo-myeon, we installed streetlights in 2010 in addition to those put up in 2007.



Status of Camellia Forest Forming Support Project



### ● Camellia Forest Forming Support Project

The measures to support camellia forest formation are part of the one village, one company sisterhood relations support project between KDHC and Shinheung 2-ri, Namwon-eup, Jeju. This project had been implemented for three years from 2008 to 2010 (522, 500, and 262 trees were planted in 2008, 2009, and 2010, respectively). The camellias were purchased using the 1:1 matching grant money procured between employees and KDHC. On each tree, a name tag with the employees' hopes and aspiration was attached.

KDHC secured the emissions right to about 58t/CO<sub>2</sub> with 522 trees in 2008 and about 56t/CO<sub>2</sub> with 500 trees in 2009 through the camellia forest forming project and additionally secured the emission right to 29t/CO<sub>2</sub> through 262 trees planted in 2010. The camellia forest in Shinheung 2-ri won for KDHC the prize of excellence as a beautiful forest keeper in the 2010 National Beautiful Forest Contest and positioned itself as a top camellia village in Korea. KDHC and Shinheung 2-ri continuously exchange through specialty purchase and sales via head office visit and citrus picking volunteering to help the rural village with its insufficient labor force in addition to the forest forming support.

Interview with the first president of the multicultural mothers' association at Yemi Elementary School

### One heart, one will through cultural experience

Members of "Steppingstone," the volunteering club of KDHC, invited 11 married immigrants, their 9 children, and 4 mentor housewives in the Jeongseon area. The day's event was organized by Steppingstone to provide the married immigrants to Korea -- who formed families in the Jeongseon area -- with an opportunity to experience city culture.

The event was held to ease their loneliness that stems from living in a remote country and help them settle in Korean society through the Korean culture experience.

"A multicultural mothers' association was created focusing on the Yemi Elementary School Mothers' Association last year. In this association, Korean housewives become mentors to multicultural mothers in adapting to life in Korea. When the association was first organized, Steppingstone helped them a lot. They opened a Korean class and a cooking class, which received good responses."

# Smart Environment

Environment is the foremost value for us to keep and protect. KDHC is committed to spearheading efforts to preserve a beautiful earth through low carbon, green growth, dynamic activities to reduce greenhouse gas (GHG) emissions, and power generation through new renewable energy based on eco-green management.







# We Report

## ● Environment Strategy for Sustainability Management

KDHC produces heat energy and electric energy using various alternative energy sources such as solar light, solar heat, sewer heat, and incineration heat. Through this, we promote sustainable growth as a general energy company by actively coping with natural energy resources reduction such as the depletion of fossil fuels. We will also do our very best for the realization of a low carbon, green growth society and in searching for new renewable energy sources through environmental impact minimization and projects to comply with climate change agreements by establishing an environmental management system.

### KDHC's Total Fuels Use Volume

Category	Unit	2008	2009	2010
Boiler kerosene	thousand kℓ	5,173	8,128	6,869
LSWR	thousand kℓ	118,432	154,032	162,093
B-C	thousand kℓ	140,699	139,999	151,024
LNG	thousand Nm <sup>3</sup>	690,173	666,500	859,567
LFG	thousand Nm <sup>3</sup>	66,297	63,433	62,459

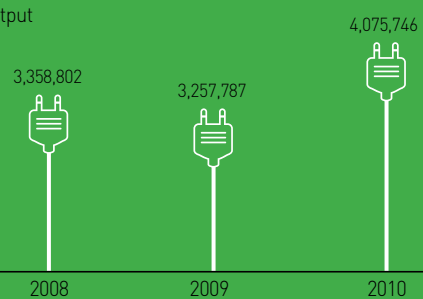
### KDHC's Total Direct/Indirect Energy Use Volume

(Unit: TJ)

Category	2008	2009	2010
Fuel (direct energy)	42,365	42,676	54,825
Electricity and steam (indirect energy)	1,469	1,805	2,611

### KDHC's Total Energy Output

#### ⚡ Electricity output



#### 🔥 Heat output



### ● Vision and Strategy

KDHC spearheads efforts to preserve a beautiful earth including low carbon, green growth based on eco-green management and activities to reduce GHG emissions as well as environmental protection through power generation using new renewable energy. We are steadfast in fulfilling our responsibilities as a general energy company that spearheads environmental management via mid- and long-term strategies establishment and by actively putting them into practice aiming at eco-management.

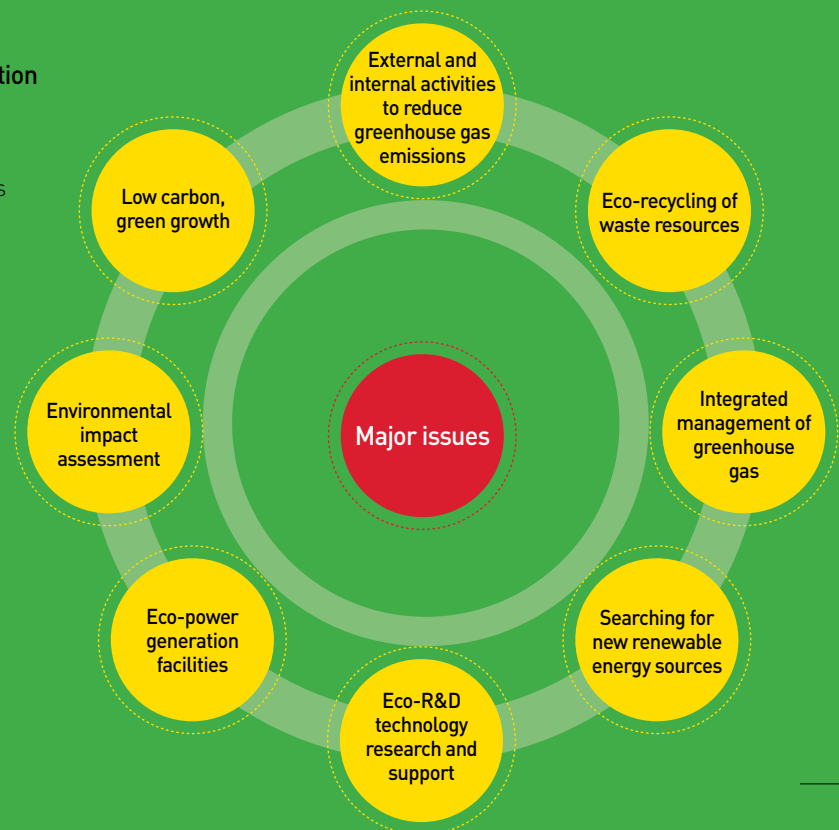
### ● Departments in charge within the organization

Climate and Environment Team :

Project to reduce GHG emissions, CDM project, climate change, environmental laws and regulations

Business Support Team : Energy saving work

Mutual Growth Team : Eco-products purchase



### Interview

**Jeong Gyeong-hwa (Korea Energy Economics Institute) \_ Environment Sector**

I understand that KDHC is very interested in the reduction of CO2 emissions and environment, and that it systematically copes with such. I have heard that KDHC's activation of heating, cooling, and electric power businesses along with the new renewable energy business is very excellent because KDHC carries out management considering the environment. I think KDHC needs to cement its status and role as a general energy company more on the PR dimension through its dynamic businesses so that the company can be heard more by customers, communities, and citizens.



# Low Carbon, Green Growth

# 1, 2

With low carbon, green growth emerging as a hot issue worldwide, eco-management is a global trend that cannot be ignored. KDHC pursues environmental impact minimization including efficient facility operation and resources recycling by establishing an environmental management system in keeping with such trend.

### ● Low carbon, green growth

KDHC establishes and implements an eco-green management strategy as an eco-energy company. We systematically put into practice activities to reduce GHG emissions and strive to become a sustainable energy company by disseminating the green mindset and securing green new growth engines.

### ● Environmental management system for low carbon, green growth

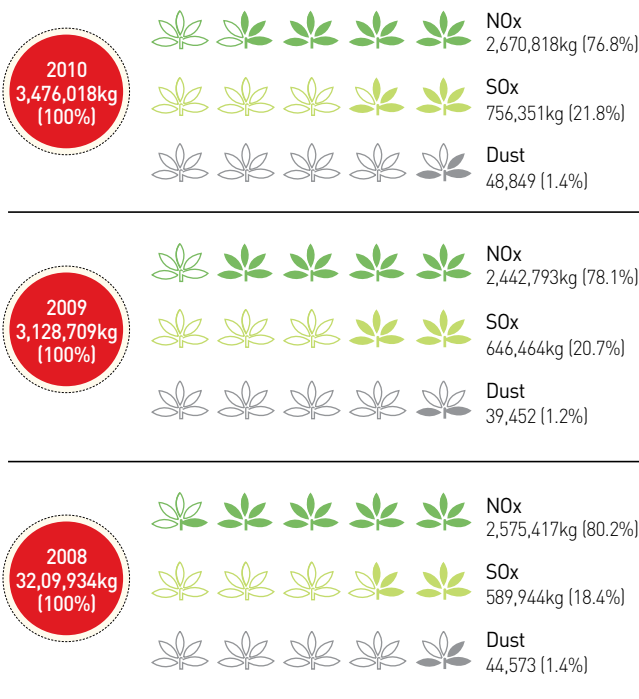
KDHC has been operating in the head office and 9 branches as of 2010 the environmental management system it established in 1996. We inspect environmental objectives and performance each year, carry out internal environmental deliberation, and receive follow-up management screening from an external agency. Through environmental accident prevention and efficient facility operation, we promote the systematization of business and environmental impact minimization. We also conduct environmental accounting each year in accordance with the Environment Ministry's environment cost accounting guidelines to consolidate the transparency of eco-management. For follow-up handling activities, we include environmental management in the environmental facility's maintenance expenses (depreciation and operation expenses) and preventive activities. Concerning stakeholder activities, we estimate them by including customer satisfaction activities and PR expenses. Regarding the costs of coping with laws and regulations and environmental restoration, we estimate them by taking into account the environmental burdens.

Environmental Accounting Expenses of KDHC			
	(Unit: KRW million)		
	2008	2009	2010
Environmental cost			
Follow-up management activities	8,788	8,880	9,944
Preventive activities	12,046	10,299	7,298
Stakeholder activities	3,124	2,765	2,607
Coping with laws and regulations and environmental restoration	40	53	56
<b>Total</b>	<b>23,998</b>	<b>21,997</b>	<b>19,905</b>

### ● Eco-facility operation for low carbon, green growth

KDHC's combined heat and power (CHP) facilities produce energy with higher energy efficiency than general power generation facilities. As environmental laws and regulations are continuously consolidated, we consistently invest in eco-facility operation. To reduce atmospheric pollutants discharged from power plants, we operate the selective catalytic reduction system (SCR), electric dust collector, and flue gas desulfurization (FGD) facilities. We also operate TMS to measure and monitor atmospheric pollutants in real time. KDHC is expanding green pipe use, which is an all-in-one type of pipe for supply and recovery, for clean and green heat supply pipe construction. Compared with the general pipe, the green pipe contributes to the reduction of environmental hazardous materials by reducing CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>x</sub> by 26%, 21%, and 43%, respectively.

#### KDHC's Total Atmospheric Pollutant Emissions



### ● Recycling of sewage and wastewater resources

KDHC's water intake is through sewage recycling facilities. We also reuse the high-temperature water of KEPCO's subsidiary located nearby as district heating process water; thus spearheading resources recycling and environmental pollution improvement. With the government's recent consolidation of water environment laws and regulations including the Act on Water Quality and Water Ecosystem and the completion of the Hwaseong Combined Cycle Power Plant, the need to control system water quality strictly was brought to the fore.

KDHC acquired KOLAS certification in the water quality analysis area. Thus, we discharge wastewater generated from heat sources and with lower pollutant content than the existing water quality criteria through physical and chemical treatment processes in the wastewater treatment plant via in-house lab operation.

Water Use Volume				
(Unit: thousand m <sup>3</sup> )				
Category	2008	2009	2010	
Water intake volume	1,949	1,832	2,469	
Discharged wastewater volume	271	266	371	
Recycled water volume	5,448	12,489	22,127	
Reused water		7,499	26,913	
Discharged water	13,525			

Water Intake Volume				
(Unit: thousand m <sup>3</sup> )				
Category	2008	2009	2010	
Drinking water intake volume	1,699	1,547	1,825	
Underground water intake volume	147	151	136	
Intake volume of water for industrial use	102	135	508	
Total	1,948	1,833	2,469	

Waste Treatment Volume				
(Unit: thousand m <sup>3</sup> )				
Category	2008	2009	2010	
In-house treatment volume	244	240	338	
Entrusted treatment volume	28	26	33	
Total	272	266	371	

### Wastewater Discharge Concentration by Main Branch

Category	Branch	Discharge permission criterion	Unit	Discharge concentration result		
				2008	2009	2010
Chemical Oxygen Demand (COD)	Daegu	≤40	mg/l	2~19	3~10.5	4~14
	Suwon	≤90		2~2.6	1.5~3.5	1~3
	Cheongju	≤130		2~5.6	1.6~7.0	2~10
	Hwaseong	≤130		1.9~2.1	3.6~14	2~11
Suspended Solids (SS)	Daegu	≤30	mg/l	1.3~18	1~12	0.3~5
	Suwon	≤80		0.4~4.3	0.3~5	0.2~4
	Cheongju	≤120		0.8~3.2	0.7~7.6	1~6
	Hwaseong	≤120		0.5~8.0	0.5~7	0.5~3.0

### ● Recycling of waste and byproducts

Mote, sludge, waste oil, waste logging materials, and waste plastics are generated in KDHC's combustion and waste processing processes, but they are lawfully processed under the Waste Management Act. In particular, mote is fully recycled as auxiliary fuel for the cement manufacturing process. The desulfurization gypsum generated as a byproduct of flue gas desulfurization facilities is fully used as raw material of cement, thereby contributing to resources recycling.

Recycled Volume of Mote and Desulfurization Gypsum			
(Unit: ton)			
Category	2008	2009	2010
Mote (tons)	347	280	246
Desulfurization gypsum (tons)	5,617	5,853	6,458

Status of Water Discharge			
(Unit: kg)			
Category	2008	2009	2010
Designated waste	6,100	19,810	17,200
General waste	117,333	134,450	163,180

#### \* TMS (Tele-Monitoring System) :

A frequent monitoring system managing atmospheric pollutant concentrations by measuring them with an automatic gauge and sending the discharge volume information to the environment control center

#### \* SCR and FGD :

Facilities reducing nitrogen oxides and sulfur oxides generated from discharge facilities

#### \* KOLAS (Korea Laboratory Accreditation Scheme) :

A system by which analysis ability is accredited by the government (Korean Agency for Technology and Standards affiliated with the Knowledge Economy Ministry) through the verification of domestic analysis facilities compliant with the international standard





# Low Carbon, Green Growth

# 3

## Yearly Performance Indices in the Environmental Sector

Environmental objective	Detailed target	Unit	2008	2009	2010
Continuous expansion and diffusion of district heating and cooling business	Implementation of heat supply expansion	1,000 households	1,025	1,095	1,148
Reduction of municipal waste discharge	Segregated collection of municipal waste	kg/person-day	112.7	114.6	115.0
	Minimization of food leftover discharge	g/person-day	19.8	20.0	19.0
Minimization of pollutants emissions	Total waste discharge management in the Seoul Metropolitan Area	-	Compliance with the allocated discharge volume	Compliance with the allocated discharge volume	Compliance with the allocated discharge volume
	Installation of water recycling facility	-	Under review	Feasibility study	Installation, operation
	Reduction of GHG emissions, implementation of CDM	-	Implementation of 4 cases	Registration of 1 case	Sale of 1 case
	Purchase of eco-products	-	Purchase	Purchase	Purchase
Inducement of user's energy saving	Guide to rational heat use method	persons	874	743	887
Enhancement of environmental awareness of all employees	Implementation of environmental education	sessions	2	2	2
Enhancement of environmental image	Eco-PR activities	times	285	257	279
Purchase of eco-products	Inducement of supply of eco-products	KRW 1 million	341	1,137	2,314

### ● Operation of environment education programs

KDHC operates various eco-education programs so that all employees can strategically cope with climate change and environmental laws and regulations. Through regular practical work education for personnel in charge of environment, we have consolidated their environmental capabilities and acquisition of expertise. Likewise, the environment education programs enable the employees to share environmental expertise, learn facility technology and operation know-how between the head office and branches, and strive to enhance expertise and reinforce employee competencies.

Thanks these activities, there were neither cases of violation of environmental laws and regulations by KDHC nor cases of penalty and punishment. KDHC achieved its 2010 energy objectives and targets by actively coping with climate change and through energy use technology development and district heating service dissemination along with efficient heat energy supply and inducement of internal and external energy saving.

### Environment Education Programs

Education institution	Details
Korea Energy Management Corporation	<ul style="list-style-type: none"> <li>Education to foster experts in greenhouse gas-related work</li> <li>Education to nurture pilot project validation personnel for energy objective management</li> </ul>
Korean Standards Association	<ul style="list-style-type: none"> <li>Program for MBO pilot certification validation experts</li> <li>Program for internal auditors of the environmental management system</li> </ul>
Korea Power Learning Institute	<ul style="list-style-type: none"> <li>Practical work on treating water for power generation</li> </ul>
Korea Testing and Research Institute	<ul style="list-style-type: none"> <li>Uncertainty of measurement</li> </ul>
In-house education	<ul style="list-style-type: none"> <li>Seminar related to total air pollution management system</li> <li>Practical environmental work seminar</li> <li>Program to improve practical water quality management work</li> </ul>
Seminar/Forum	<ul style="list-style-type: none"> <li>International symposium on the Emission Trade System</li> <li>International workshop on the design direction of the Greenhouse Gas Emission Trade System</li> <li>Coping with climate change through the corporate network</li> <li>Carbon market research association</li> <li>Plan of MBO for greenhouse gas emissions and measure to adopt the Emission Trade System</li> <li>International conference for MBO for greenhouse gas emissions</li> </ul>

### Results of Energy Saving of KDHC in 2010

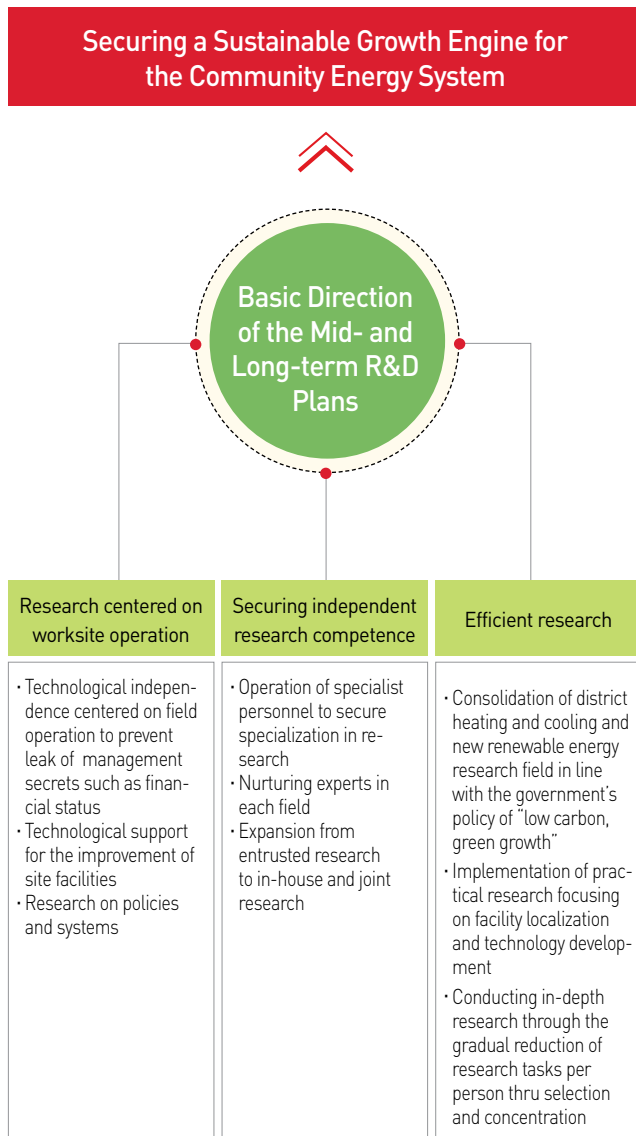
Plan		Result	
Volume of saving (1,000 TOE)	Amount of saving (KRW 1 million)	Volume of saving (1,000 TOE)	Amount of saving (KRW 1 million)
335	1,881	352	2,117



# Eco-Energy R&D

KDHC has established 3-stage, mid- and long-term R&D plans pursuing field operation-centered R&D, securing independent research capabilities, and seeking efficient research; we implement all these to acquire sustainable growth engines for the community energy system.

KDHC plans R&D for accumulating and securing in advance its own eco-energy core technologies to overcome the environment and energy crises including measures to cope with climate change and high oil prices through the consolidation of linkage between the government's low carbon, green growth and KDHC's mid- and long-term development direction. We select and implement 22 core technologies in 6 fields related to the reflection of rapidly changing advanced technology trends and efficiency improvement technologies according to energy use volume increase and environment, a hot issue domestically and internationally.



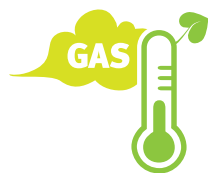
### 22 Core Technologies in 6 Fields in Terms of R&D Roadmap

Combined heat and power (CHP) generation	<ul style="list-style-type: none"> <li>• CHP efficiency design and configuration technology, technology to enhance operation efficiency</li> <li>• Development, forecast, and diagnosis technologies for major parts of power generation facilities</li> </ul>
District heating	<ul style="list-style-type: none"> <li>• Technology to enhance district heating demand development, facility optimization technology</li> <li>• Technologies for DH facility forecast, diagnosis, and repair and for the reduction of environmental pollution</li> </ul>
Network	<ul style="list-style-type: none"> <li>• Development of new technology for heat piping, material performance, and supply (delivery) efficiency improvement</li> <li>• Technologies for securing independence of power distribution and establishment of power distribution credibility</li> </ul>
Heat user	<ul style="list-style-type: none"> <li>• User's heating and cooling demand management and technology to diagnose energy use</li> <li>• New technology for user's secondary system</li> </ul>
New renewable energy	<ul style="list-style-type: none"> <li>• New energy technology to apply to district energy system</li> <li>• Technology to apply water resources and bio energy</li> </ul>
District cooling	<ul style="list-style-type: none"> <li>• Efficiency improvement for the absorbing/dehumidifying-type cooling system and compacting the system</li> <li>• Enhancement of cold water direct supply system efficiency</li> </ul>

Since its establishment, KDHC has been performing 239 task projects (completed: 188; in progress: 51) as R&D achievements as of 2010. We invested about KRW 25.3 billion in R&D for the past 3 years, and we plan to invest KRW 12.4 billion in 2011.

### Status of Research: Status of KDHC's R&D and Investment

Category	2008	2009	2010
No. of research cases	75	52	51
Investment cost(KRW billion)	104	75	74



# Activities to reduce greenhouse gas emissions to cope with climate change

As a public corporation fulfilling its social responsibilities, we conduct various activities to minimize greenhouse gas emissions.

# 1, 2

**● Development of integrated management system for GHG**  
 KDHC has developed an integrated management system for GHG emissions for systematic GHG emissions management. Through this system, we manage GHG emissions data using computerization technology. We plan to increase strategically the efficiency of management of each GHG emission source ranging from the analyses of emissions and projected data and targets of reduction.

### Status of Integrated Management System of GHG Emissions

Stage 1 (2010)	Stage 2 (2011)
<ul style="list-style-type: none"> <li>Inventory                             <ul style="list-style-type: none"> <li>- Calculation and forecast of emissions</li> <li>- Energy sources management</li> <li>- Standard information management</li> <li>- Statistics analysis, drawing up reports</li> <li>- QA/QC</li> </ul> </li> <li>Management of GHG emissions reduction projects                             <ul style="list-style-type: none"> <li>- Registration of GHG emissions reduction projects</li> <li>- Status management of GHG emissions reduction projects</li> <li>- History management of GHG emissions reduction projects</li> <li>- Management of CERs/KCERs trade</li> <li>- Analysis of forecast reduction of GHG emissions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Management of potential reduction of emissions                             <ul style="list-style-type: none"> <li>- Management of reduction items</li> <li>- Reduction plan management</li> <li>- Analysis of potential reduction of emissions                                     <ul style="list-style-type: none"> <li>→ Evaluation of marginal reduction expense</li> </ul> </li> </ul> </li> <li>Emissions trade                             <ul style="list-style-type: none"> <li>- Reduction target management                                     <ul style="list-style-type: none"> <li>→ Setting reduction targets</li> <li>→ Assessment of target achievement</li> </ul> </li> <li>- Inquiry on transaction of trade</li> <li>- Incentive management</li> </ul> </li> <li>Credit management                             <ul style="list-style-type: none"> <li>- Credit trading management                                     <ul style="list-style-type: none"> <li>→ Management of credit issue quantity, sales volume, purchase volume, holding quantity, forecast issue quantity</li> </ul> </li> </ul> </li> </ul>

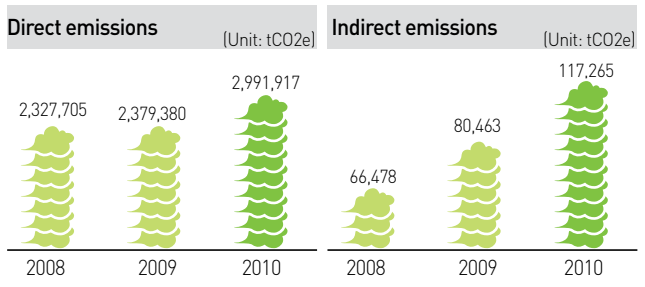
Status of GHG emissions			
	(Unit: thousand ton)		
Category	2008	2009	2010
GHG emissions	2,394	2,460	3,109

**● Establishment of GHG reduction roadmap**  
 Korea has established a target to reduce GHG emissions by 30% compared to BAU by 2020. Consequently, KDHC has built a system to estimate and manage GHG emissions. By establishing a roadmap to reduce GHG emissions by 30% based on basic unit through highly efficient CHP facilities, we systematically manage GHG emissions. We plan to spearhead efforts to cope with climate change caused by greenhouse gas emissions by realizing a 577,000-ton CO<sub>2</sub> reduction by 2020.

### Setting the GHG emissions basic unit: 30% reduction based on CO<sub>2</sub> basic unit compared to 2005

GHG emissions basic unit	2005	2020(Target)	Remark
Electricity (t/MWh)	0.510	0.357	30% Reduction
Heat (t/Gcal)	0.237	0.166	30% Reduction

\* BAU (Business As Usual: forecast value of emissions) :  
 Forecast value to be discharged when special action is not taken (low carbon, green growth, etc.); in other words, BAU refers to the estimated value of GHG emissions in the future as affected by oil price fluctuation, population change, and economic growth rate based on the national economy's usual growth



### ● Continuous implementation of the CDM project

The CDM (carbon development mechanism) project is a project wherein advanced countries with the obligation to reduce GHG emissions invest in the GHG emissions reduction projects of developing countries without such obligation. This is used as a means of acquiring carbon emission rights (CER) for the sustainable development of developing countries and fulfilling the GHG emissions reduction obligation of advanced countries. KDHC registered 3 cases with UN: Gangnam LNG fuel conversion; Bangcheon-ri landfill gas capture and treatment, and Daegu and Shinan Jeungdo's solar power generation. In 2010, we generated additional income of KRW 470 million by selling Daegu Bangcheon-ri CDM project's CER. We were awarded the Environment Minister's prize in December 2010 in recognition of our efforts to cope with climate change and CDM project achievement.

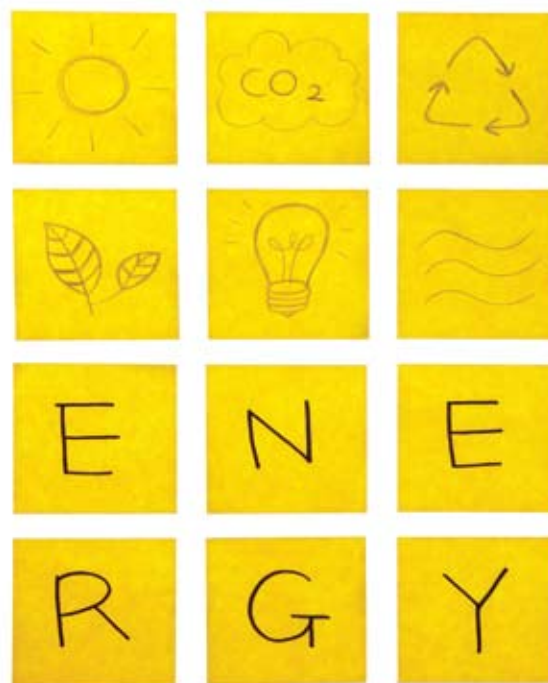
#### Status of the CDM Project

Project	National approval	UN registration	Forecast reduction volume (tCO <sub>2</sub> /year)	Forecast income (KRW 100 million/year)	Status of implementation
LNG fuel conversion in Gangnam Branch	Jul.04 2006	Apr.02 2007	34,703	7	Validation of monitoring
Capture and treatment in Bangcheon-ri Landfill Gas	Jan.24 2007	Aug.19 2007	41,823	8	Application for secondary CER issue
Solar power generation in Daegu, Shinan Jeungdo	Jun.20 2008	Jan.14 2009	827	0.2	Validation of monitoring
Woodchip and Biomass CHP in Daegu	Aug.19 2009	-	24,584	5	Confirmation of feasibility

\* Forecast income : Apply EUR 13/CERs (KRW 1,500/euro)

### ● Stop CO<sub>2</sub> mentoring

KDHC participates in Gyeonggi-do's "Stop CO<sub>2</sub> Mentoring" wherein a large enterprise serves as mentor to small and medium businesses (SMBs) and offers them technologies to reduce GHG emissions. Through win-win cooperation between large enterprises and SMBs, we actively spearhead efforts to protect our environment while putting green management into practice. We have chosen district heating users as mentees, with our Goyang, Yongin, and Hwaseong Branches participating as mentors. KDHC carried out energy saving education and facility improvement support and held energy saving events to assist each household actively in reducing GHG emissions.



#### CDM Project Approval and CERs Issue Procedure



\* UN Global Compact (UNGC): The UN Global Compact presented a framework that can combine corporate strategies in human rights, labor, environment, and anticorruption fields with Global Compact's 10 principles. As the largest corporate citizen's voluntary initiative, UNGC consists of thousands of members from more than 100 countries worldwide. Above all, UNGC seeks to present and develop the rationality of firms and world markets.

\* CDM (Clean Development Mechanism) is a system wherein the GHG emissions reduction results achieved by advanced countries' investment of capital and technology in developing countries and results of implementing GHG emissions projects can be utilized for advanced countries' reduction targets for GHG emissions. CDM is managed by the UN CDM Execution Committee.





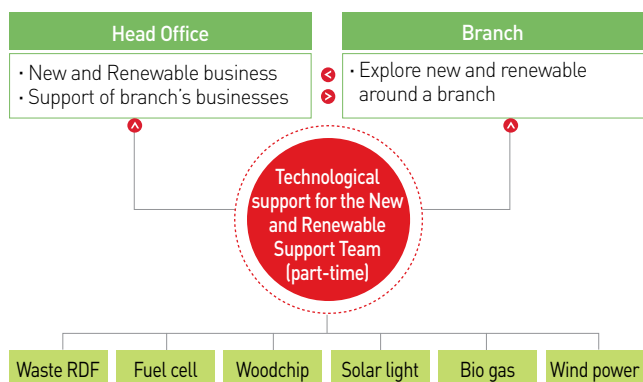
# New and Renewable

KDHC implements new growth engine creation strategies based on power generation facility expansion using various types of new renewable energy. In particular, KDHC seeks to have new renewable energy account for 12.1% of the total energy supply by 2022. New renewable energy resources business exploration and support of each branch are reviewed by the team in charge at the head office.

### ● Efforts to expand the new and renewable business linked with the community energy system

KDHC strategically operates its new and renewable business considering linkage with the community energy system to secure a new growth engine through the business. Consequently, we aim to have 10% of total power and 16% of total heat energy come from new and renewable by 2022. The short-term plan of the new and renewable business linked with the community energy system business has been set to reduce production cost using energy recovered from waste, etc. As mid- and long-term plan, we will continuously invest and carry out woodchip-combined heat and power generation business and RDF business; thus, we will do our very best for consistent exploration and commercialization of various new and renewable sources to protect the environment.

#### Response System of Team to Support New and Renewable



#### Status of the New and Renewable Business

Sources	Facilities used	Facility capacity	Output (2010)
Incineration heat	12 incineration plants including the Gangnam Incineration Plant	221Gcal/h	1,777,000Gcal
Landfill gas	2 plants: Sangam and Daegu	118Gcal/h	202,000 Gcal
Solar heat	1 plant: Bundang	500Gcal/year	248Gcal
Solar light	2 plants: Shinan and Daegu	0.9MWp	1,192MWh
Wood system bio mass	1 plant: Daegu	3MW +14.5Gcal/h	62,000Gcal+ 12,960MWh
Power generation using incineration steam	1 plant: Gangnam	13MW	80,007MWh

Total: 19 plants; Total output of new and renewable as of 2010: 220,980TOE (10.5% of KDHC's total output of 2,208,808TOE)

### ● Woodchip CHP Plant

KDHC has been spearheading the exploration of new renewable energy that recycles natural resources to replace oil import and minimize CO2 emissions. The woodchip bio mass CHP plant produces heat and electricity using waste wood damaged by pine tree scab mite. Construction of the woodchip bio mass CHP plant in Daegu was completed at the end of 2010; currently operated as one of the typical new renewable energy businesses, it produced 5,570toe heat and electricity in 2010. KDHC actively supports investment in new renewable energy business. For instance, an MOU was signed with Korea Expressway Corporation to secure and procure woodchip fuel stably. We expect oil import replacement effect worth approx. KRW 6.8 billion equivalent to 66,000 barrels per year and annual GHG emissions reduction of 27,000 tons in the future.

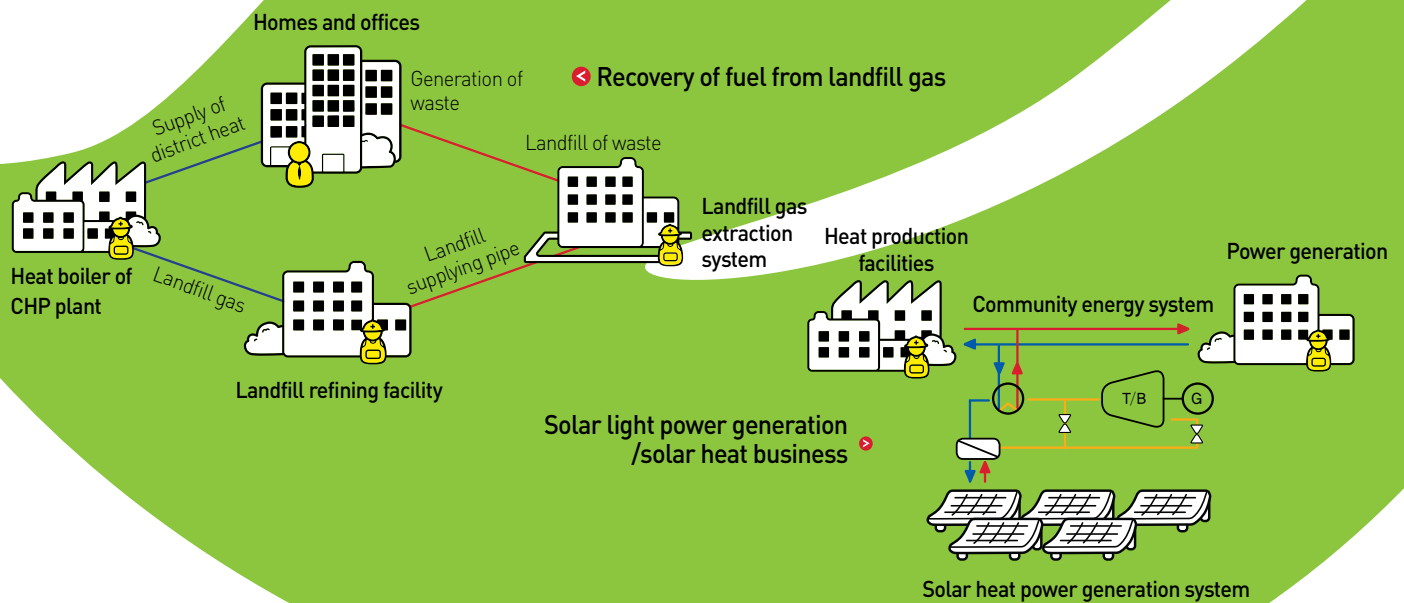
\* MOU (Memorandum Of Understanding): Agreement in writing signed prior to signing a formal agreement to coordinate, confirm, and record both parties' opinions

### ● Commercialization of RDF CHP plant and wood biomass CHP plant

KDHC is building an RDF CHP plant using municipal solid waste (refuse-derived fuel) and a wood biomass CHP plant together with 6 municipalities and guns (counties) including Naju City, Jeonnam. These two CHP plants are expected to be completed in June 2014. The energy produced in these two power plants will be supplied to Innovation Cities including Gwangju and other cities in Jeonnam; thus supplying electricity to 40,000 households and heat to 26,000 households. We also expect to replace imports worth KRW 45 billion annually and reduce GHG emissions by 180,000 tons.

### ● Recovery of energy from landfill gas

KDHC succeeded in producing energy using waste landfill gas in Nanjido as fuel for the first time in Korea. The produced heat and electric energy are supplied to the Seoul Sangam Housing Lot Development Zone and World Cup main stadium. In 12 places including Gangnam, incineration heat is used as community energy system supply. Thanks to the development of energy recovery from landfill gas, about KRW 79.9 billion annual oil import substitution effect and annual 165,400 toe energy saving effect have been realized.



### ● Business to recover energy from sewerage recycling

KDHC signed an agreement with Yongin City to carry out the non-utilized energy development test business to recycle sewerage of the Suji Sewerage Treatment Plant (Suji Respia). Of the 110,000 tons daily average sewerage discharged from the Suji Sewerage Treatment Plant, 30,000 tons of discharged water is absorbed by heat pumps and heated as heating water. This way, we produce heat energy that can be used by about 1,100 households. Currently, 2% of the heat energy in Yongin City should be supplied by sewerage heat energy. The effects of reducing GHG emissions by 6,000 tons annually and saving 20,000Gcal energy annually are expected to contribute dramatically to cutting down LNG fuel consumption.

### ● Solar light power generation/ Solar heat business

KDHC is actively engaged in the solar light power generation business to secure strategic advantage in the generation of solar light power, a new and renewable resource. Concerning the solar light power generation business, we operate two solar light power plants in Daegu and Shinan. We operate the district energy system business using solar heat in Bundang. As a clean energy source that neither discharges exhaust gas and waste heat nor incurs fuel expenses, solar light is expected to help comply with climate change agreements and contribute to continuous new and renewable sources utilization.



Building's rooftop solar light facilities

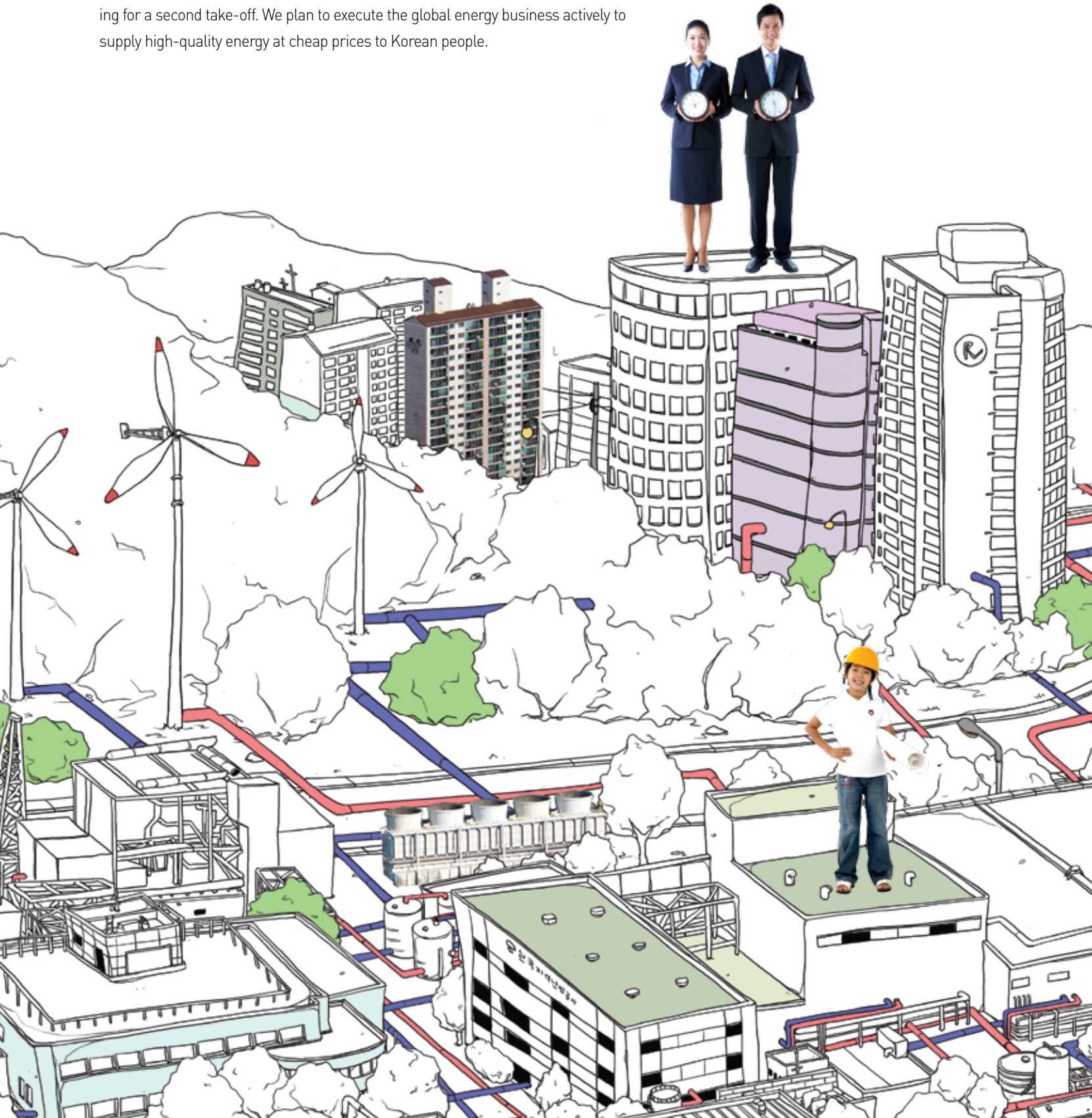
\* RDF (Refuse-Derived Fuels) : Solid fuels created by crushing municipal waste (general waste) such as food leftovers, paper, and plastics and mixing them with lime; RDF generates 5,000kcal per kg like coal

\* LFG (Landfill Gas) : Producing heat or electricity or alternative fuel to LNG using gas and methane gas generated from decomposing organic matters in the municipal waste landfill

\* IGCC (Integrated Gasification Combined Cycle): Unlike the existing coal-fired thermal power generation, this is a system that produces power through a combined cycle composed of gas and steam turbines after the gasification of coal.

# Smart Energy

KDHC contributes to the enhancement of citizens' convenience through efficient energy use and atmospheric environment improvement. As the top energy company in Korea that diversifies its businesses into electricity, energy, and district energy system businesses and expands and diffuses the district heating business and new technology development, we are preparing for a second take-off. We plan to execute the global energy business actively to supply high-quality energy at cheap prices to Korean people.





# We Report

## ● Economic Strategy for Sustainability Management

KDHC was chosen as an autonomous management pilot agency. Therefore, we signed an autonomous management agreement with the government, and broader management rights were guaranteed in human resources, organization, and budget. This greatly helped our active engagement in the energy development business.

KDHC's district heating business' sales rose, thanks to an increase in domestic district heating service-adopting households. Since the new district energy system facilities are scheduled to be launched from the end of 2010 to 2014 in Paju, Pangyo, Gwanggyo, Goyang Samsung, Sejong City, Gwangju Innovation City, and Dongtan New Town 2, we expect sales and operating profit in 2014 to be 3 times and 2.5 times those of 2010, respectively.

## ● Financial statement indices in the economic sector

### Status of Financial Statements of KDHC for 3 Years and Outlook for 2011

(Unit: KRW billion)

Category	2008	2009	2010	2011(Target)
Current assets	639.5	519.5	533.2	555.1
Non-current assets	1,743.4	2,383.2	2,806.1	3,796.0
<b>Total assets</b>	<b>2,382.9</b>	<b>2,902.7</b>	<b>3,339.3</b>	<b>4,351.1</b>
Current liabilities	465.8	603.8	658.6	615.2
Non-current liabilities	1,201.2	1,429.1	1,591.7	2,277.5
<b>Total liabilities</b>	<b>1,667.0</b>	<b>2,032.9</b>	<b>2,250.3</b>	<b>2,892.7</b>
Capital stock	43.4	43.4	57.9	57.9
Capital surplus	-	-	113.7	113.7
Other comprehensive income	-	-	-	-
Retained earnings	11.9	6.7	7.9	8.4
<b>Total stockholders' equity</b>	<b>684.4</b>	<b>833.1</b>	<b>925.3</b>	<b>1,295.2</b>

\* The 2011 target is based on estimated financial statements according to the International Financial Reporting Standards.

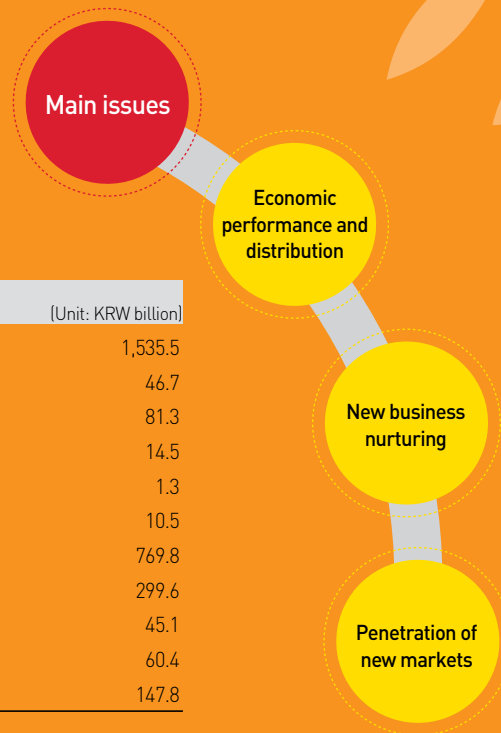
## ● Projected Revenue Indices in the Economic Sector

(Unit: KRW billion)

Category	2011	2012	2013	2014	2015	2016
District heating	905.3	1,064.9	1,215.6	1,351.2	1,497.9	1,671.8
District cooling	19.2	34.0	49.4	54.3	62.4	66.0
Electric power sales	954.3	873.0	1,065.3	1,120.6	1,142.5	1,282.0
<b>Total</b>	<b>1,878.8</b>	<b>1,971.9</b>	<b>2,330.3</b>	<b>2,526.1</b>	<b>2,702.8</b>	<b>3,019.8</b>

● **Departments within the organization**

Fund IR Team: Fund procurement and management, disclosure and employee stock ownership association



Distribution of Created Values		(Unit: KRW billion)
Created Value-Added		1,535.5
- Creditors		46.7
- Internal reserves		81.3
- Shareholders (dividend)		14.5
- Return to communities		1.3
- Government, local governments		10.5
- Fuel suppliers		769.8
- Water heat and electric power suppliers		299.6
- Maintenance/Repair and service suppliers		45.1
- Employees		60.4
- Miscellaneous		147.8

KDHC's Stability, Profitability, Growth, and Activity						
Category		2008	2009	2010	Target in 2011	Industry average in 2009
Stability	Liquidity ratio (%)	137.3	86.0	81.0	90.2	109.0
	Debt ratio (%)	232.8	233.7	206.6	198.3	101.6
	Dependence on borrowings (%)	60.6	60.7	59.4	57.0	33.2
	Interest coverage ratio (times) compared to operating profit	0.88	2.77	2.91	2.77	1.4
Profitability	Net profit to sales ratio (%)	0.8	12.0	6.7	4.9	2.6
	Net profit to total assets ratio (%)	0.4	5.7	3.1	2.1	1.6
	Return on equity (%)	1.3	18.9	9.8	6.3	3.2
	Operating profit to sales ratio (%)	3.7	13.7	9.5	9.6	3.6
Growth and activity	Sales growth rate (%)	73.4	4.9	15.2	30.7	-0.4
	Turnover ratio of net worth (times)	1.7	1.6	1.5	1.3	1.2
	Total assets growth rate (%)	19.2	21.8	15.0	30.3	6.2
	Turnover ratio of total assets (times)	0.5	0.5	0.5	0.4	0.6

**Interview**

**Cho Hyeong-gi (Seoul School of Intergrated Sciences & Technologies): Economy - Overall/Creativity Innovation Sector**

The active communication activities of KDHC, which collects various stakeholders' opinions and develops by reflecting them on the corporation's management, are evaluated very positively. I think KDHC's supply of heat and electric energy at cheap prices to Korean people is commendable. Still, I believe KDHC needs to enhance its corporate image and credibility through the precise recognition of KDHC's specific businesses and active social contribution activities by Korean people through more strategic and overall PR activities. I expect KDHC to grow and develop further with mid- and long-term and sustainability management strategies considering the economy and environment of communities.



# Community Energy Supply System

KDHC is a public corporation leading the adoption of the community energy supply system (CES), which involves supplying many consumers including buildings with heat or electricity produced in large-scale energy production facilities such as combined heat and power (CHP) plant. We mainly produce and supply electricity and heat from the CHP plant and supply community energy using waste incinerators and peak load boilers.

### ● Status of CES

KDHC's CES is divided into heating and cooling business, power business, and new and renewable business. The heating and cooling business supplies heat for heating, boiler, and cooling targeting various buildings including homes and shopping malls in large residential areas. Currently, KDHC supplies district heating service to apartments and large buildings through branches nationwide. We also supply district cooling service to 334 buildings including the Seoul Sangam-dong World Cup Stadium.

We plan to expand gradually our power business selling electric power produced from the CHP plants and build medium- and large-scale CHP plants centered on the Paju and Gwanggyo branches. We are also producing electricity using new and renewable including incineration heat, landfill gas, or RDF and woodchip waste energy.

Status of CES for 3 Years			
Category	2008	2009	2010
Business	19	25	26
Heat supply area	37	43	41
No. of supplied households	1,736,031	1,887,767	2,013,885
Market share of KDHC	59.3%	58%	57.0%
Diffusion rate nationwide (thousand household)	12.3% [14,169]	13.1% [14,456]	13.5% [14,877]

Strategy to Link CES and New and Renewable (based on 2015)						(Unit: TOE)
Category	New Renewable Energy Linked with CES (97%)				Others (3%)	Total
	RDF	Bio gas	Woodchip	Waste, etc.	(Solar light /wind power)	
Energy production plan	144,202	44,660	10,019	37,787	6,874	243,542

Energy Utilization Results from New and Renewable Sources				(Unit: TOE)
Category	2009	2010	Rate of increase	
Total energy output	1,855,557	2,208,808	19.0%	
New and Renewable output	202,940	220,980	8.9%	

### ● Prospect of CES

KDHC believes CES's competitiveness depends on how efficiently and cleanly heat is produced and consequently plans to increase investment in solar light and solar heat. Currently, all energy businesses must use new and renewable at a certain ratio according to the government policy. New and Renewable should account for at least 12.1% of total energy use by 2012, and solar light is the object to be adopted in priority. KDHC already installed 800KW facilities in Shinan-gun, Jeonnam in 2007 following the adoption of 100KW solar light power generation facilities in the Daegu Plant in 2006; it is scheduled to expand solar light power generation facilities gradually.

### ● Creation of synergy effect with new business linked with CES

KDHC seeks a new business model that can create synergy effect using the existing CES and network for this year's management objective. We plan to find measures to maximize the use of the existing heat sources and to carry out businesses strategically with energy efficiency and environmental improvement effects. KDHC improves the efficiency of heat supply facilities and devises measures to cope with aging heat supply facilities (pipes, etc.); it fully prepares for securing stable energy sources by diversifying fuel purchasing sources.

To respond proactively to the government's core policy of low carbon, green growth, we plan to operate aggressively our new and renewable business, through which competitiveness can be secured and synergy effect can be realized by linking with CES. We are set to supply about 80% of heat energy using energy recovered from waste in the case of CES in Gwangju and Jeonnam Innovation cities. We also plan to build a woodchip CHP plant in Daegu, which uses waste wood such as scab mite-damaged trees and byproducts of development. We have established mid- and long-term strategy to produce 10% of total electric power and 16% of total heat energy using new and renewable by 2022.

### ● Engagement in CES Acquisition of CES permit in Dongtan District 2

It was difficult to operate a new business in Dongtan District 2 due to the government's policy of restricting public corporations' engagement

in new business. Amid such deteriorated condition, we have devised detailed criteria for rational business engagement to cope with such government policy according to the public corporations' advancement plan. Consequently, we obtained a permit by effectively convincing the government agencies that our engagement in the business can save national energy and enhance consumer convenience.

KDHC is taking off as the largest power generator in the Seoul Metropolitan Area, at the same time consolidating its reputation as the world's largest district heating business after obtaining the Dongtan District 2 project permit. We also enhanced national energy use efficiency along with investment cost saving through operation linked with the existing Hwaseong project. With the heat rate decline following production cost cutting, we play our part and fulfill our responsibilities as a public corporation leading the market through the enhancement of consumer convenience and benefits and relevant R&D.

#### Composition of Optimal Heat Source Facilities Using 116Gcal/h of Redundant Heat from the Existing Facilities

Existing facilities	Additional installation	Total heat supply facilities
Dongtan District 1	Dongtan District 2	Dongtan District 1 and 2
<b>CHP facilities</b> 512MW+396Gcal/h <b>Peak load boiler</b> 342Gcal/h <b>Total</b> 512MW+738Gcal/h	<b>CHP facilities</b> 325MW+224Gcal/h <b>New and Renewable</b> 13MW+13Gcal/h <b>Peak load boiler</b> 549Gcal/h <b>Total</b> 338MW+786Gcal/h	<b>CHP facilities</b> 837MW+620Gcal/h <b>New and Renewable</b> 13MW+13Gcal/h <b>Peak load boiler</b> 891Gcal/h <b>Total</b> 850MW+1,524Gcal/h

#### Status of the Dongtan 2 District Project

Category	Existing Dongtan 1 Project	Dongtan 2 District
Development area	10,692,000km <sup>2</sup>	23,972,000km <sup>2</sup>
No. of households	54,213	108,463
Maximum heat load	622Gcal/h	872Gcal/h
Initial-stage heat supply	2004 year	2014 year
CHP facility size	512MW+396Gcal/h	325MW+224Gcal/h

#### ● Adoption of community energy supply system close to the Gangnam branch network

As a result of securing the base heat source near the Gangnam Branch through active consultation for additional reflection of heat source site in the Munjeong Urban Development District near the Gangnam Branch, the management balance of the Gangnam Branch improved following the reduction of the peak load boiler's operation

rate. Likewise, the branch promoted ordinary people's residential security, convenience, and benefits and enhanced public benefits by supply community energy to Gangnam Nest Complex -- a nest APT district -- centered on ordinary people's residential area.

#### Munjeong Urban Development

District	Area (1,000m <sup>2</sup> )	No. of households	Heat load (Gcal/h)
Gangnam Nest Residential District	941	6,821	45
Munjeong Urban Development District	548	-	56
Total	1,489	6,821	101

#### ● Research on community energy supply system using waste heat from nuclear power plant

To cope with low carbon, green growth and climate change through the reduction of fossil fuel use, we research on measures to supply community energy using waste heat from nuclear power plants. This research deals with the community energy supply system using waste heat from nuclear power plants, and we are conducting technical feasibility analysis, candidate site selection, economic efficiency analysis, and precise business feasibility review together with the relevant agencies (Korea Hydro & Nuclear Power and KEPCO Engineering & Construction).

#### Energy Saving and Environment Improvement Effects

Category	Utilization of nuclear power plant configuration	
Energy saving effect (annual)	Saving volume [TOE]	2,224,881
	Saving amount [KRW 1 million]	1,780
Environment improvement effect (annual)	Atmospheric pollutant (ton)	-
	Greenhouse gas (TCO <sub>2</sub> )	5,108,000

#### ● Review of measure to use waste heat generated from the industrial complex adjacent to Ulsan

KDHC established a measure to supply community energy using waste heat from the industrial complex adjacent to Ulsan and review it. This way, we seek the diversification of business and review a measure to enhance national energy use efficiency by linking and utilizing low-price waste heat adjacent to the community where community energy is supplied.





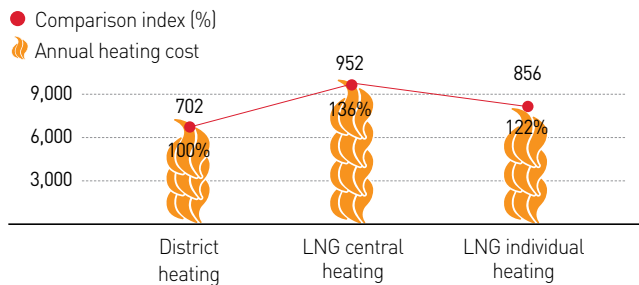
# District Heating System

KDHC's district heating system involves supplying economical heat energy at low cost. Customers can use our heating service at their desired time and temperature, and heating cost is rationally imposed according to use volume. By actively utilizing low-cost energy sources such as incineration heat and network, we contribute to users' economical life by maintaining about 10% lower heating cost compared with other heating modes.

## ● District heating system

The district heating system is a city-based facility that supplies large-scale communities -- without installing individual heat production facilities in apartments, business, and commercial buildings -- with economically produced heat from large-scale heat production facilities equipped with cutting-edge pollution prevention equipment such as CHP plant. This is an advanced heating system with excellent effects of energy saving and reduction of air pollutants compared to the existing heating modes.

**Heat Rates and Comparison Index by Heating Mode** (Unit: KRW thousand)



## ● Status of district heating business

Korea's district heating service was supplied to 2.01 million households or about 13.5% of the total households for heating nationwide as of the end of 2010. Our 13 branches nationwide supplied 1.15 million households or approximately 57% of the total district heating-supplied households. KDHC has devised step-by-step indices for continuous growth through business implementation via linkage with the existing business and network; we will actively develop new demand, aiming at supplying to 2 million households by 2015.

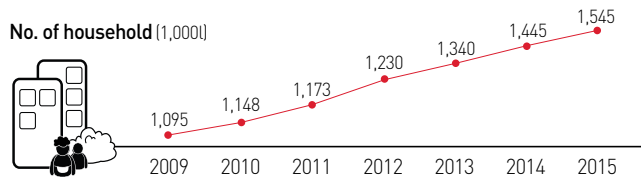
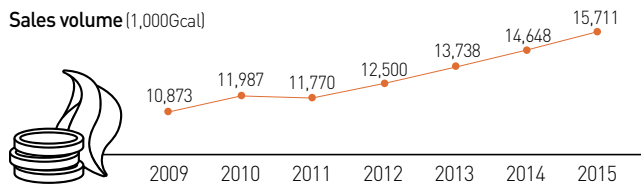
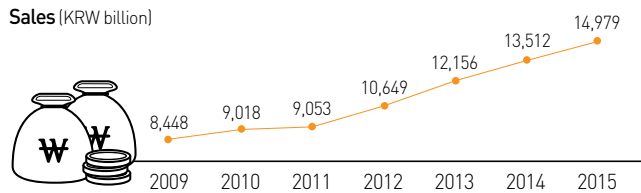
## ● CHP Plants in New Towns

KDHC is implementing or planning power generation business using new CHP plants targeting new towns such as Paju, Pango, Gwanggyo, and Dongtan District 2. We strive to supply energy stably by building medium-sized and large CHP plants in new community energy supply regions as well as the existing CHP plant.

## ● Continual installation of heat pipe

The stable supply of community heat necessitates continuously installing heat pipes. The length of heat pipes we installed nationwide is 3,336km (1,668kmx2 rows of heat supply and recovery pipes), which is equivalent to making round trips thrice from Seoul to Busan. This actually accounts for about 60% of the total domestic heat pipe network. In particular, with the heat pipe network expansion linked with regions within the Seoul Metropolitan Area based on linkage lines of 99kmx2 rows of pipelines, we contribute to enhancing heat supply efficiency and stability and expansion of heat supply regions in the Seoul Metropolitan Area.

**Status of Sales of District Heating Service and Outlook**

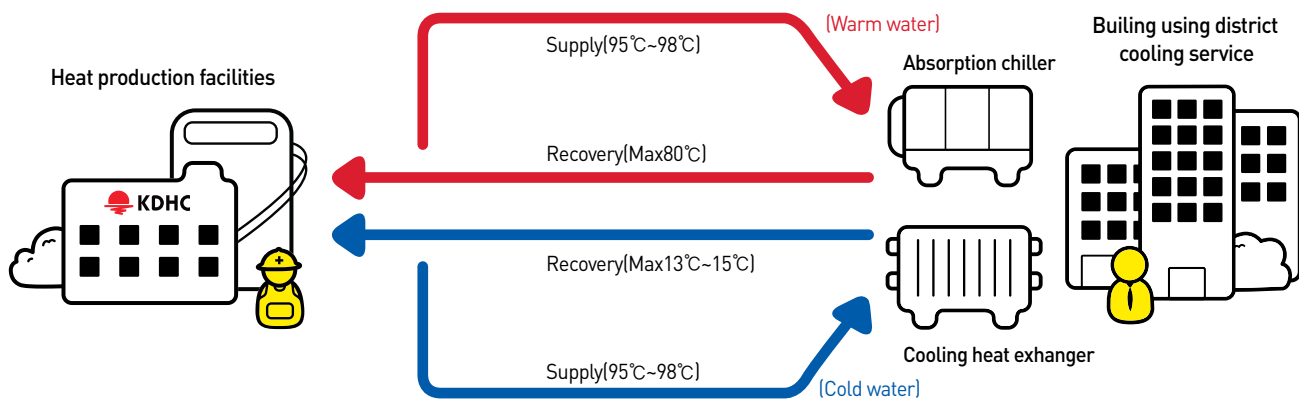


\* Financial outlook (based on business permission)



## District Cooling System

The district cooling system involves supplying cooling service by economically supplying to certain districts warm or cold water produced from large-scale heat production facilities. This system realizes load reduction at peak time of power consumption using alternative electric energy including residual heat from a CHP plant.



### ● District cooling business

The district cooling system does not discharge ozone layer-destroying materials such as Freon gas since it supplies a cooling system using heat for the district heating service. In other words, the district cooling system is environment-friendly and is able to reduce power peak load in summertime. When the district cooling system is adopted, each household does not have to use an air conditioner; thus reducing electricity use considerably.

The district cooling business is a must to cut energy use, reduce the peak load boiler, and enhance the use rate of CHP plants. KDHC is currently expanding its business area from heat and warm water supply to cooling system.

Our district cooling system uses a dehumidification cooling mode supplying cold air using the existing heating pipes; thus, business size is forecast to grow. We also develop a user system for high-quality cooling system considering user needs such as multi-room cooling.

We have adopted an economical cold water direct supply mode using residual heat from power generation and late-night electric ice storage for Sangam DMC, Southeast Region Distribution Complex, and KINTEX. Following the development of a 2-step absorption refrigerator that increases user efficiency, we plan to supply district cooling service homes including apartments. We have a master plan to increase district cooling service sales to 10% of district heating

service sales by 2015 through technology development and system improvement for district cooling system dissemination.

**Excellent and advanced cooling system**





# Power Business

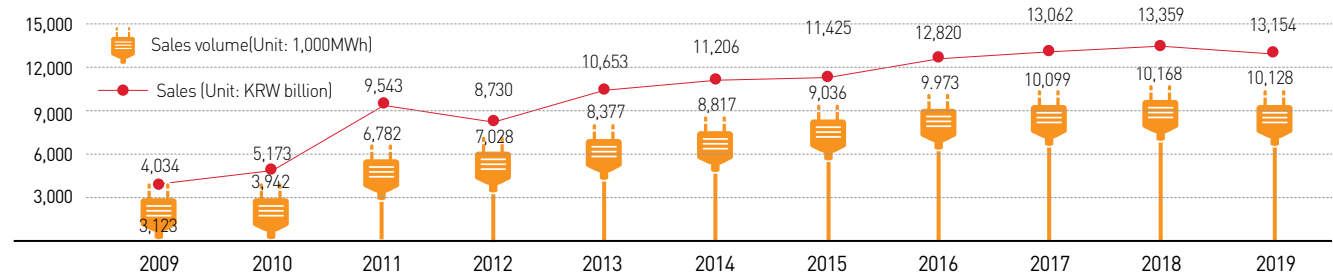
KDHC expands the power business ratio by building its own CHP plants to grow and develop into a general energy company beyond sales structure that depends solely on the heating business. To carry out power production stably, we strive for stable operation, efficient enhancement of power generation facilities, and power generation cost reduction.

### ● Operation of power generation facilities

KDHC has power generation facilities in the Hwaseong, Pangyo, Daegu, Suwon, Cheongju, and Gangnam regions. For power business expansion, power generation facilities rose 436% from 161MW in 2001 to 863MW in 2010, with the generated power volume increasing 1,121% from 334Gwh in 2001 to 4,079Gwh in 2010.

The timely operation and suspension of power plants in the Seoul Metropolitan Area such as Hwaseong, Pangyo, Suwon, and Gangnam contribute greatly to stable power system operation in the Seoul and Gyeonggi regions.

### Yearly Trends in Sales and Sales Volume



### Energy sources by workplace

Region	Energy sources	Facility capacity(MW)
Hwaseong	LNG	511.8
Pangyo	LNG	146.3
Suwon	Heavy oil	43.2
Gangnam	Incineration heat	13.3
Cheongju	Heavy oil	61.4
Daegu	Heavy oil	43.5
	Solar light	0.1
Shinan	Woodchip	3
	Solar light	0.8
District electricity	LNG	39

### Scheduled Construction of Power Generation Facilities for District Heating Service

Category	Power plant	Construction completion (scheduled) date	Fuel used	Facility capacity (MW)	Remarks
Under construction	Paju	Apr.30 2011	LNG	515.5	Under operation
	Kwanggyo	Oct. 2012	LNG	141	
	Samsong	Nov. 2011	LNG	99	District electricity
Plan	Hwaseong Dongtan district 2	-	LNG	338.6	Including 13.6MW of electricity as fuel
	Gwangju and Jeonnam Innovation City	-	RDF	17.8	

### ● Power generation facilities construction plan

KDHC plans to expand power generation facilities in Paju, Gwanggyo, Samsong, Hwaseong, Dongtan District 2 and Gwangju, and Jeonnam Innovation Cities. We have been operating the LNG CHP plant in Paju whose construction was completed in April 2011.

### ● Facility operation system

KDHC maintains facilities in superb condition through the establishment and execution of preventive maintenance plans so that electric power essential to the national economy and people's living can be supplied stably. To forecast and analyze the fluctuation risk of sales volume and selling prices by external factors, we have secured the flexibility of fuel use by putting up a short- and long-term forecast system. We expect to maximize efficiency at the time of facility operation and suspension by installing a mock operation system of a power plant in Paju and to improve operators' operation capacity. In operating the community electricity supply business, we have systematically inspected power meter system quality, recorded zero breakdown rate, and conducted preventive inspection of power distribution facilities and virtual failure training. Consequently, we realized zero power failure in 2010.



## Overseas Business

KDHC aims at the active implementation of the new and renewable business and proper model development in overseas business as a key management objective. We are looking for new project development opportunities abroad including Mongolia, Uzbekistan, East Timor, and Malaysia.



ODA (Official Development Assistance) project in Mongolia

### ● Overseas business development strategy

KDHC is actively penetrating overseas markets to develop new markets based on energy-related expertise and technological prowess accumulated for more than 20 years. Above all, KDHC raises credibility in overseas markets by passing down district heating-related advanced technologies.

### ● Overseas business development – ODA projects for developing countries

KDHC improved the district heating and water supply systems in Ulaanbaatar, Mongolia from March 2008 to October 2009. We also replaced 44 pumps, heat exchangers, and pipes in worn-out machine rooms. For having passed down advanced district heating technology along with comprehensive project management, KDHC was given a plaque of appreciation and an achievement award by the Mongolian government. Furthermore, we enhanced Korea's status and credibility by implementing ODA projects for developing countries such as Uzbekistan, East Timor, and Malaysia.

#### Successful Project to Improve Heat Supply System in Khorezm Province, Uzbekistan

<b>Project outline</b>	Replacement of worn-out boilers, heat exchangers, pumps, gas meters, etc. (54 places)
<b>Service of KDHC</b>	Execution of technology training related to district heating machine rooms and project management
<b>Size and duration</b>	USD 3.5 million (PMC: KRW 189 million). Dec. 2009 – Dec. 2010

### ● Outlook of overseas business

KDHC plans to export actively expertise in the community energy supply system and new and renewable fields built up in the district heating/cooling and power sectors for 20 years to foreign countries and nurture it as a new growth engine. We are devising measures to penetrate overseas markets jointly with other domestic companies.

#### Revision of overseas business development strategy

Initial strategy			
Category	Base establishment period	Penetration period	Growth period
Period	2007-2008	2009-2011	After 2012
Plan	Fostering competence Direct investment	Joint penetration of cooperative projects	Joint penetration of cooperative projects Earnings creation



Revision			
Category	Base establishment period	Penetration period	Growth period
Period	2010-2012	2013-2015	2016-2019
Plan	ODA project implementation Review of package project	O&M business penetration Packaging project penetration Participation in state projects	Direct investment project implementation

#### ▶ Devising a measure to operate the Overseas Business Deliberation Committee

- Establishment of system operation guidelines to minimize risks
- Specify the use of external experts upon review of investment feasibility and risks.

#### Consolidation of procedure for monitoring overseas investment risks

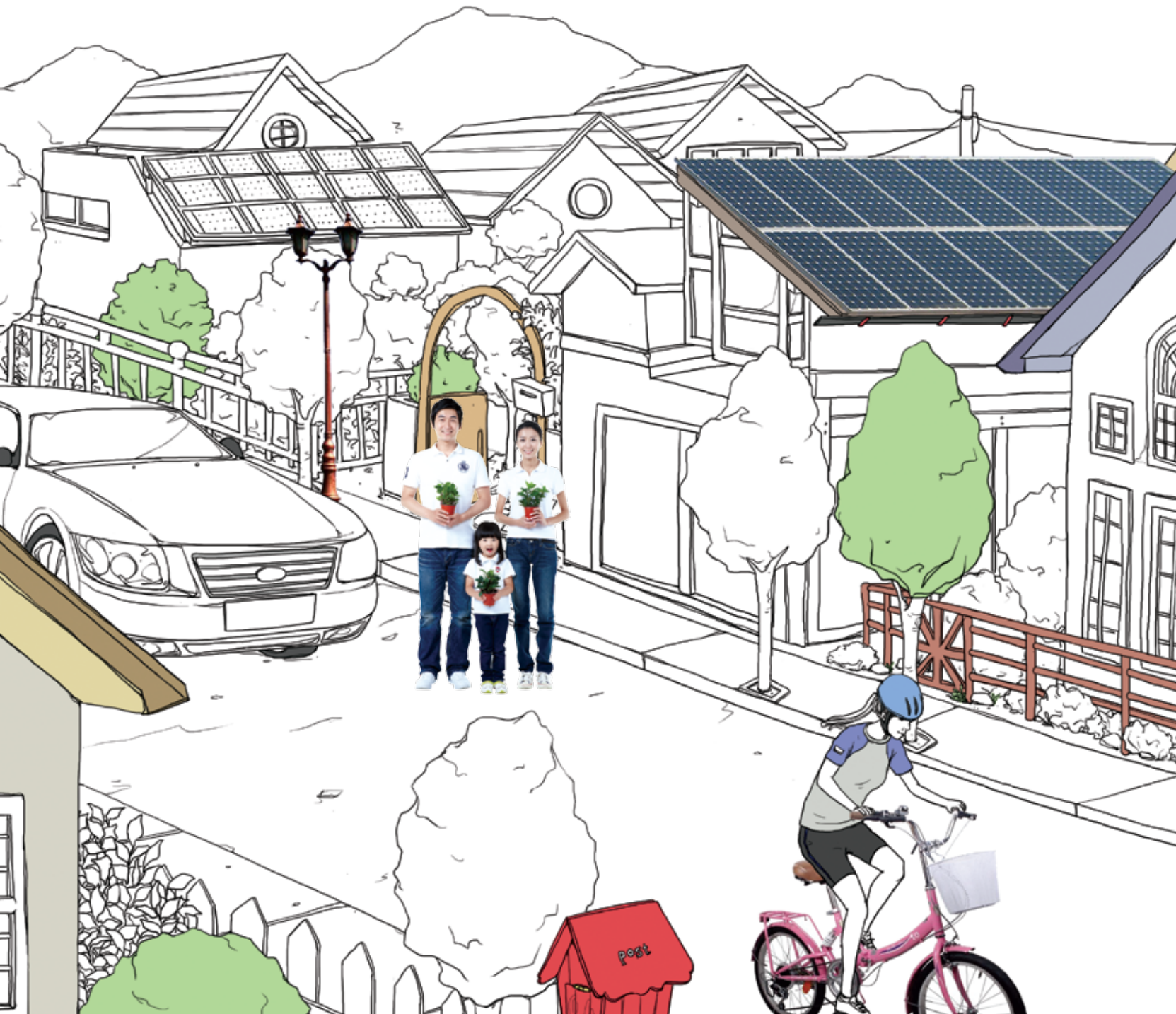
1	Overseas Business Working Committee	➔	2	Overseas Business Deliberation Committee	➔
3	Management meeting	➔	4	Board meetings	

\* ODA (Official Development Assistance):

Loans provided to developing countries or international organizations in the form of donation or commitment for developing countries' economic development and welfare enhancement

# Smart Life

KDHC pursues a convenient, happy world where it can grow and develop together with various stakeholders. We are doing our very best to grow together with our customers, employees, and partner firms.









# Customer

KDHC is committed to consolidating leadership worldwide through insight on customers, intuition on the future, and continual win-win cooperation with business partners.

1

● **Won Customer Satisfaction Management Grand Prize for 5 consecutive years**

KDHC was inducted to the hall of fame for customer satisfaction after winning the Customer Satisfaction Management Grand Prize for 5 consecutive years, the first public corporation to achieve such feat.

We pledge to offer happy energy suitable for the customer's emotion, simultaneously implementing takeoff as a general energy company by providing world-class services, based on the execution of our specialized social responsibilities.

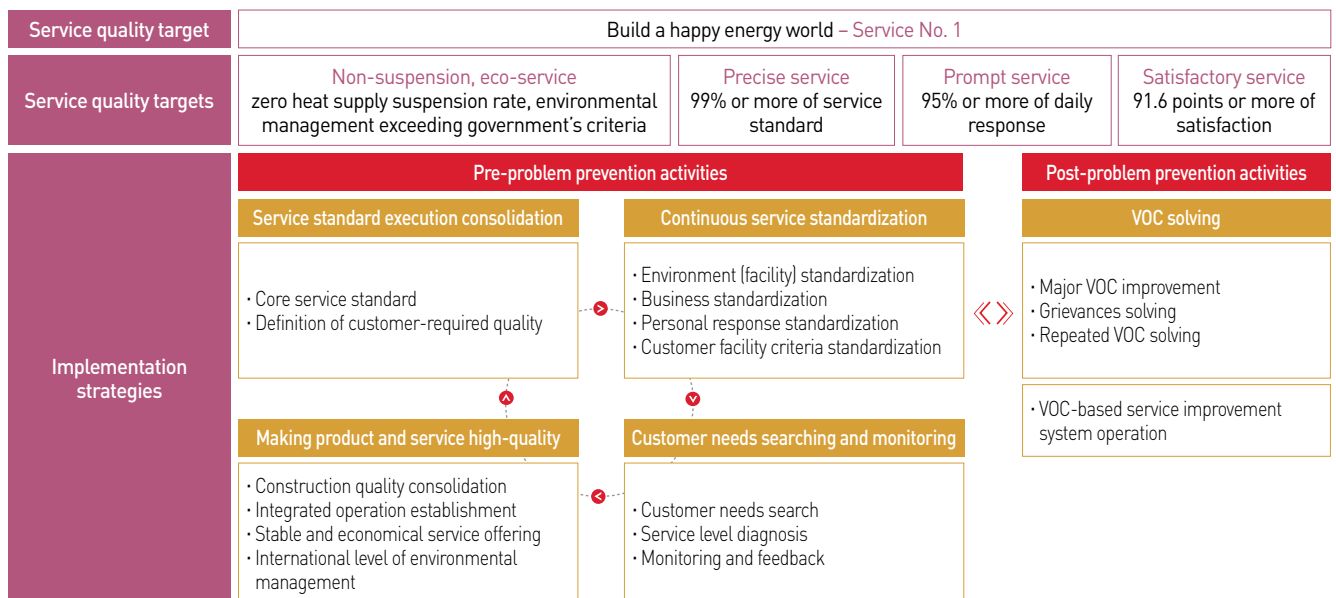


Inducted to the customer satisfaction hall of fame (first public corporation to achieve such feat)

**Government's Customer Satisfaction Survey**

Category		2008	2009	2010
Customer Satisfaction	No. of institutions surveyed	24	23	23
Survey organized by the government	Average score of institutions surveyed (points)	89.4	92.0	92.9
	KDHC (points)	88.1	93.4	92.6
In-house customer satisfaction survey (points)		85.7	85.3	85.2

**Service Quality Management Strategy**

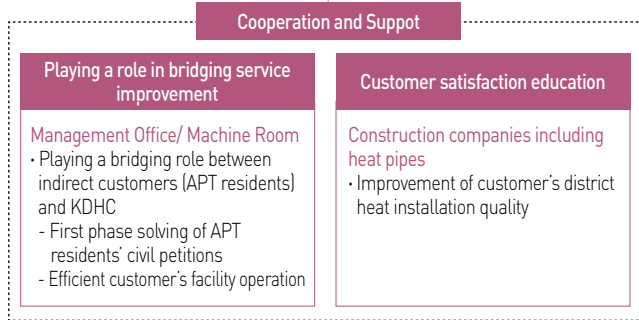
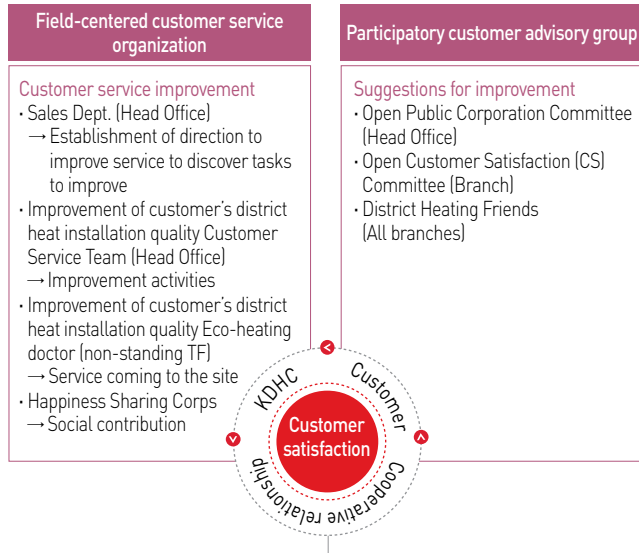






# Customer

## 3-Circle Organization System



## CS Leadership CS = KDHC's DNA

- CS management culture that begins with the CEO
- Differentiated CS Keywords and Promotion of Execution

Adoption Period (2002~2005)	Continuous System Establishment Period (2006~2008)	Enhancement Period (2008~2011)
Making CS routine	Dedication management of performing together with society	Cheap and high-quality service (eco-service)

## CS Service improving activities / Top-level service

- Implementation of step-by-step E-CRM for VOC management and communication consolidation
- Development of specialized service based on eco-service
- Operation of CS standard activity system (20 activities)
- Standardization of business handling, facility criteria, and response level
- Validation and monitoring system of objective CS level

## Establishment of Integrated Management System for Customer Business

(existing) Organization operation centered on job group		(improved) Integration centered on customer convenience	
Organization	Role	Organization	Role
Customer Service Team	Sales and fee management Supervision of branch customer service	Customer Service Team	Sales and fee management Supervision of branch customer service
Operation Division	Customer technology support		Customer technology support
<b>(Effect)</b>		<p><b>One-Stop service embodiment</b></p> <ul style="list-style-type: none"> <li>- Integrated solution to customer facility, rate (fee), and heating problems</li> </ul>	

## Management based on CS for customer impression

Management based on CS is a core factor in all management activities. We regard CS as an essential competitiveness and do our very best in management for customers by establishing as our mission "Customer impression beyond customer satisfaction." KDHC makes pre-problem prevention and post-problem solving efforts to achieve its service quality sector objective of "No. 1 in service," in an integrated manner, and it is establishing a service delivery support system between customers, KDHC, and partner firms. We listen to the voice of customers (VOC) to activate relationship with customers, reflect them actively on our policy, and carry out activities for customers through service visiting the site. For the nurturing of CS-specialized personnel, we operate an integrated measure including machine room operators who are value deliverers as well as internal employees as value producers.

## CS management for strategy/organization system = Enhancement as a brand

- Establishment and revision of CS strategy every 3 years
- Scientific and regular CS strategy process
- Service identity (Eco Service) establishment
- Operation of eco-service execution system
- Linkage and cooperation system establishment between internal and external CS organizations

## CS Competence/Learning system/Continuous growth through learning and experience

- Establishment of CS model personnel and operation of competence-centered education/training system
- Performance-based reward system including Eco-CS STAR
- Value delivery customer competence improvement program
- Best practice finding in each branch and operation of sharing and dissemination system for all branches
- Two-way benchmarking of best practices
- Operation of CS and VOC process feedback system

# 2, 3

## ● Customer communication

KDHC built an IT-based VOC operation system in 2009 and customer consulting center in 2011, and it implements construction of an on-line cyber branch until 2012. As part of our efforts such as regular VOC inspection system and reflection of VOC implementation ratio on management evaluation, our customer consulting reply rate improved from 93.8% in 2008 to 99.6% in 2009 and to 100% in 2010.

KDHC selected "Warm Light Sound System" as VOC name following a VOC name contest targeting our employees to activate the VOC system. By linking the VOC response level and performance with internal management evaluation, VOC management is spreading to all KDHC organizations.

We have been operating the VOC channel centered on response to the customers who presented VOC to date, but we plan to consolidate the VOC channel into a searching type of VOC channel that supplements the existing one. We endeavor to offer services approaching the in-depth needs of customers by continually diversifying the collection channels of VOC.

## ● Re-acquisition of Korea Service Quality (SQ)

KDHC continuously maintains the high quality of service by undergoing regular diagnosis on services, customer satisfaction, and overall quality levels by the Korean Agency for Technology and Standards affiliated with the Knowledge Economy Ministry. Following the certification expiration date in July 2007, we succeeded in acquiring re-certification for the head office and all branches.

## Step-by-Step E-CRM Plan

Stage	Outline	Period
Stage 1 (integrated VOC system)	Integrated management of wired/wireless and on/offline VOC	2010
Stage 2 (establishment of integrated customer center)	Integrated wired VOC management, establishment of specialized consulting system	2010-2011
Stage 3 (establishment of cyber branch)	Integration of online customer work	2011-2012
Stage 4 (establishment of E-CRM)	Embodiment of integrated customer management and marketing	2013

## Results of Integrated VOC System Implementation

Category	2009	2010	Increase
VOC collection (cases)	1,947	2,365	418
Handling rate within one day of consulting (%)	99.6	100	0.4
Handling rate within 5 days of civil petition (%)	96.8	100	3.2
Satisfaction with VOC handling results (very satisfactory)	4.26	4.34	0.09

Korea Service Quality (SQ) Certification (KATS affiliated with MKE)	<b>Summary</b>	A system wherein the government certifies an agency whose service quality level and achievements are excellent and officially announces the agency as an outstanding agency
	<b>Results</b>	KDHC's head office and all 12 workplaces acquired SQ certification for the first time ever among public corporations in July 2007.
CS Management Awards (KMAC)	<b>Summary</b>	The award was established to select companies that are excellent in the customer satisfaction area and to disseminate customer satisfaction nationwide in 1993.
	<b>Results</b>	Began contest in 2003 to spread enterprise management based on CS 2004-2008: KDHC won the grand prize for 5 consecutive years (first public corporation to achieve such feat) 2009: Inducted to the hall of fame as the first public corporation to achieve such feat

## Consolidation of VOC System for Customer Response

Response type of VOC		Searching type of VOC	
Channel	Main VOC details	Method	Main VOC details
Customer Consulting Center (Internet)	<ul style="list-style-type: none"> <li>Consulting, inquiry, civil petition</li> <li>Customer's suggestions</li> <li>Kind/Unkind</li> </ul>	CS survey	<ul style="list-style-type: none"> <li>CS index</li> <li>Customer's major needs</li> </ul>
Tel. (1688-2488)	<ul style="list-style-type: none"> <li>Consulting, inquiry, civil petition</li> </ul>	Interview	<ul style="list-style-type: none"> <li>Major VOC by customer type and matters to improve</li> </ul>
Branch (sales support)	<ul style="list-style-type: none"> <li>Heat use application, rate, arrearage</li> </ul>	Suggestion and experience memoir	<ul style="list-style-type: none"> <li>Contest of ideas and experiences</li> </ul>
Visiting and inspection service	<ul style="list-style-type: none"> <li>Inspection of households with inferior heating system and consulting on how to use the heating system</li> </ul>	Employee training and workshop	<ul style="list-style-type: none"> <li>Sharing customer VOC by region</li> </ul>
		Two-way opinion exchange	<ul style="list-style-type: none"> <li>Return postcard, FGI, Box of VOC</li> </ul>
Post/FAX	<ul style="list-style-type: none"> <li>Reply to questions related to civil petition and sales</li> </ul>	Questionnaire survey (targeting internal and external customers)	<ul style="list-style-type: none"> <li>Survey of customer opinions and needs by biz</li> </ul>
		APT i home service	<ul style="list-style-type: none"> <li>District heating information offering to occupants and need for collection</li> </ul>
		Head's responsibility management Happy call	<ul style="list-style-type: none"> <li>Satisfaction with customer-related work process and discovering tasks to improve</li> </ul>



## ECO Customer Service Declaration

Eco-service is a service value of KDHC to supply ecological and economical energy. KDHC pledges to supply stably good-quality services so that citizens do not experience inconveniences in the use of heating/cooling service.

First, we shall maintain reasonable and stable level of rate through economical operation and rational management.

Second, we shall carefully listen to the voices of customers, reflect them on our management to the fullest, and quickly, precisely, and kindly carry out customers' requests.

Third, we shall continuously endeavor to realize energy saving and social responsibility by supplying eco-energy.

To realize such objectives, we pledge to establish specific service implementation standards and earnestly put them into practice.

July,7 2011  
President of KDHC

### ● Offering differentiated services satisfying customers

KDHC operates a visiting Eco-Service Group to offer tailored energy service to customers. The Eco-Service Group enhances customer satisfaction in the course of offering energy consulting services including eco-heating doctor operation and production of customized manuals to support efficient heating use.

#### Manual for Customer Use Convenience

Service	Main Details	Type
APT customer facilities After-sales service information	Offering guidelines by examining suitable equipment and after-sales service information system so that stable, quick action can be taken upon trouble in customer's facilities	Booklet Electronic file
Easy method of using district heating service using 3D animation	How to use the heating service within the home by presenting the gist of taking actions in case of trouble, diagnosis of trouble utilizing 3D animation - Presenting 7 items on hot water supply as well as how to use, how to use a thermostat in each room of a household, simple diagnosing method for inferior heating (7 minutes and 30 seconds)	3D animation
Tailored user manual	User manual that takes into account the features of a heating meter (caloric value meter, flow meter), thermostat (digital and dial mode), and warm water distributor - Produce three types: type attaching to a refrigerator (general use), type attaching to a refrigerator (tailored), and booklet (tailored) - Produce by visiting APT complex and homes and photographing actual facilities so that users can easily understand.	3 types

Service	Main Details	Type
Handbook on heat use facilities for district heating (for machine room manager)	Technology know-how as well as how to respond to civil petitions for a machine room manager to cope with APT civil petitions primarily (July 2009)	Booklet and CD Booklet and CD

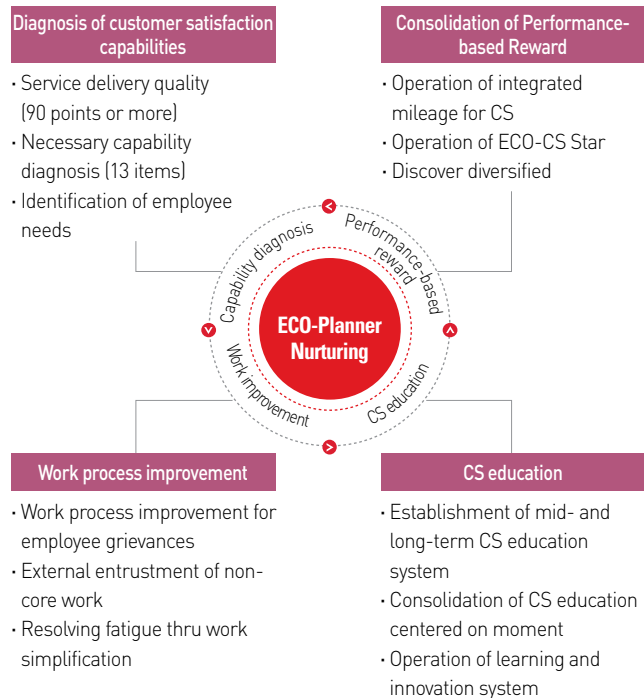
#### Eco-Business Schedule

##### A. Model personnel for customer satisfaction (Eco-Planner)

To supply eco-energy, our model personnel needs to conduct R&D on cutting-edge technology and implement specialized customer satisfaction for energy customer satisfaction and support for intermediate service delivering customer's capability improvement.

##### B. Strategies to enhance capabilities to embody model personnel for CS

Implementation of Integrated Strategies on the Dimensions of Capability Diagnosis, Process Improvement, Education, Performance-based Reward





# 4, 5

● Establishment of Customer Consulting Center for management based on CS

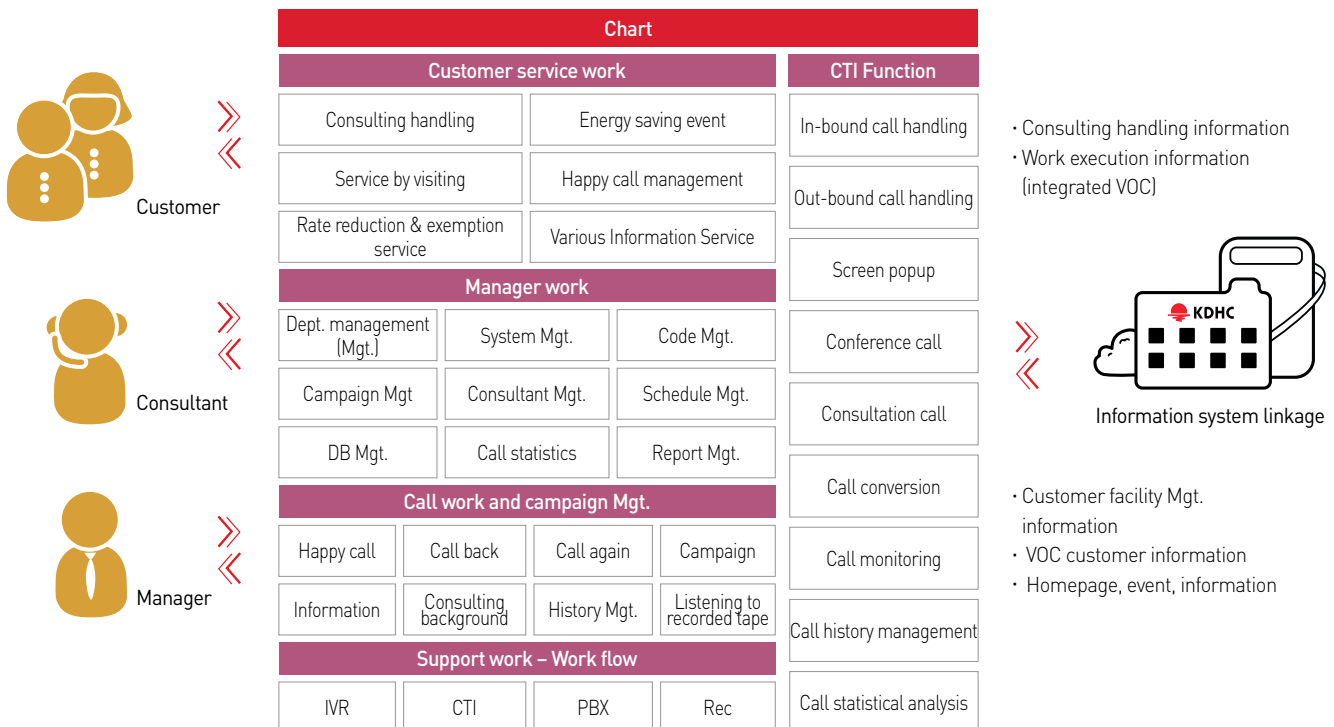
KDHC plans to convert the non-specialized customer consulting system wherein consultants carry out other work simultaneously with consulting into a specialized consulting system. We plan to build a Customer Consulting Center on June 1, 2011 to enhance efficiency of customer consulting via telephone and begin telephone consulting with the telephone no. 1688-2488 nationwide.

As such, we are committed to bolstering management based on CS by systematically collecting and analyzing VOC, along with building an integrated VOC system and reflecting customer needs promptly and precisely. Based on digitalization management regulations, we have protected customers' personal information, and no complaint cases related to customer's personal information protection were recorded.

Effects Through Establishment of Efficient Customer Consulting Center

Before	Improvement
Dispersed consulting between head office and branches	Integrated consulting from the customer center (1688-2488)
Non-professional response Handling and response rates went down due to simultaneous performance of regular work and telephone consulting	Professional consultants' response Consulting details recording, enabling database
One-stop handling difficult	One-stop handling possible
Personnel's CS satisfaction decline at moment of truth CS satisfaction of personnel at moment of truth is low at 59.4 points, down 19.2 points compared with all other employees.	Entrustment of core work to the outside, Enhancement of competitiveness
Management office and customer representatives-centered customer management	Individual customers-centered customer management

System Chart of the Warm Customer Consulting Center System



# We Report

## ● Vision and strategy

KDHC's competitiveness base is the employees. We overcome crises together with our employees and promote the development of KDHC. To search for excellent talented people who can cope with internal and external management changes, we have improved fairness and equity, striving to enhance employees' welfare and satisfaction. In addition, we build an environment wherein the best performance can be achieved by adopting various evaluation systems to improve employees' work performance capabilities.

## ● Depts. in charge within KDHC

HR Training Team : HR management such as employee employment, work improvement, promotion, and education/training

Labor & Welfare Team : Employees' welfare and health management



## Interview

### Hwang Hyeon-bae (International Science Business Belt Planning Group \_ Employees Sector)

I positively assess the excellence of KDHC's internal employment performance, which produces efficient, economical energy. I think KDHC's resources and education can create good results for the competence concentration of the employees. Through efforts to establish productive labor-management culture based on win-win industrial relations and employees' internal competence concentration on passionately carrying out work with solid goals, KDHC can grow and develop much more robustly given its great potential.



## Employees – Status of Employees and HR Management

KDHC strives to secure outstanding specialized human resources by establishing measures to employ and train core expert personnel in line with its mid- and long-term development direction. We bolstered personal and aptitude tests, improved written exams and interview tests based on in-depth interview and external experts to secure suitable talented people, and strengthened the fairness and efficiency of the employment process.

### ● Status of employees

As of the end of 2010, 1,200 employees worked at KDHC including 5 officers. By employment type, regular positions numbered 1,196 (99.7%), and irregular positions were 4 (0.3%); males accounted for 90.8% (1,089), a high ratio. We gradually increase females' employment to secure balance in talented people. Our employee turnover is a low 0.58%, and average number of years of service is 11 years and 8 months. Our college-graduate employees' initial annual salary in 2010 was KRW 23.23 million, which is similar to Korea's public corporations' average initial salary of KRW 25.38 million. By applying a single pay system, we treat males and females equally without gender discrimination.

#### Status of Total Employees of KDHC

Category		(Unit: persons)			
		2008	2009	2010	
Employment	No. of officers	5	5	5	
	No. of employees	1,091	1,127	1,196	
	Total no. of employees including officer	1,096	1,132	1,200	
	Gender	Male	989	1,021	1,089
		Female	107	111	111
	Employment type	Regular	1,091	1,127	1,196
		Irregular	5	5	4
	Job group	Common	59	57	59
		Office work	242	240	238
		Technical work	778	820	885
Average number of years of service		11.1	10.1	11.8	
Employment	Newly employed persons	-	49	83	
Change of job	Turnover	0.46%	0.53%	0.58%	

### ● Employment of fair and socially equitable talented people

KDHC abolished application qualifications related to education, age, and foreign language scores step-by-step so as to offer equal opportunities to every citizen when recruiting talented people. Moreover, we carry out a system of employment by objective with regard to women, talented people in provincial areas, and science and engineering personnel and simultaneously conduct a preferential system for those with expert engineer certificates, doctoral degrees, and qualification certificates. We make great effort to secure talented people by participating in HR employment expos.

We carried out socially equitable employment for patriotic casualties as well as the bereaved, organ donors, socially well-doers, members of the low income bracket, people from rural villages, disabled people, and patriots for the first time in Korea.

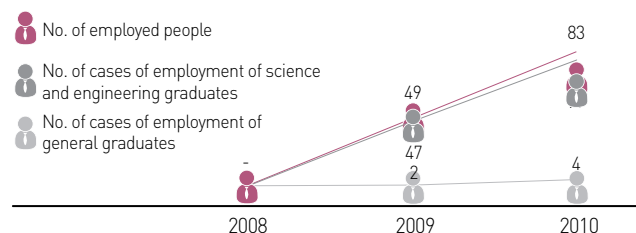
#### Status of Socially Equitable Employment of Talented People for the Past 3 Years

(Unit: persons)

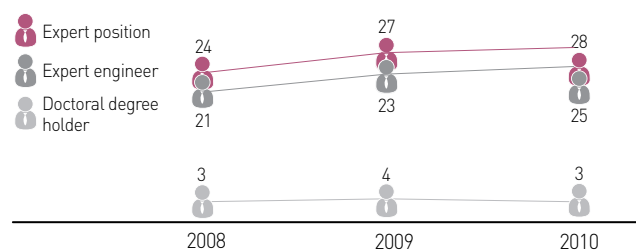
Category	Socially equitable talented people employment		Public recruitment and expert recruitment	
	2009	2010	2009	2010
No. of employed people	16	11	33	72

#### Status of employment results of science and engineering graduates and expert positions

No. of cases of employment of general graduates (Unit: people)



Expert position (expert engineer, doctoral degree holder) (Unit: people)



#### Status of employment of the underprivileged for the past 3 years (disabled people)

(Unit: people)

Category	2008	2009	2010
Total number	1,096	1,132	1,200
No. of disabled people employed	26	30	37
Employment ratio of disabled people (%)	2.4	2.7	3.1

\* Mandatory ratio of disabled people : The ratio rose from 2% in 2009 to 3% in 2010.



# Employees

## ● Gender equality sport system

KDHC has been establishing various support systems to consolidate the internal working environment where work and home can be balanced for internal employees by carrying out a maternity protection leave system and operating workplace childcare facilities. By expanding the women's employment ratio, we plan to gradually increase the women managerial position ratio. We were awarded the Women's Minister's Award in July 2009 in recognition of our efforts.

## ● Fair HR system

KDHC expands and operates a diversified evaluation system to consolidate the HR management system. We strictly prohibit discrimination on grounds of education, gender, age, region, physical disability, etc., in training and deliberation of promotion. For performance-based HR culture consolidation, according to team system execution, we have been expanding and executing a rank and position separation type of "contest system of position" since 2006 for all positions from team leaders to higher positions. As a result, we were selected as an outstanding case in the "Workshop for Public Agency Advancement" organized by the government in March 2010.

### Status of Position Contest System for the Past 3 Years

Category	2008	2009	2010
Object position	140 positions	127 positions (No. of positions declined, according to merger and abolishment of organizations)	128 positions
Operation criteria	Assignment of leader's rank without post (team member) for the first time ever and execution of downward posting system	Consolidation of selective HR system and continuous execution of no post for leader's rank	Transparent HR system embodiment thru public competition for all positions and continuous execution of no post for leader's rank

### Training Details and No. of Personnel Who Completed Training

Category	Details	No. of Trained Personnel		
		2008	2009	2010
Basics of job	Course to be completed essentially as an employee; consists of hierarchical training and basic job training	814	595	655
Job improvement	Management, finance, sales/business development, energy engineering, machine, electricity, control, construction, environment, heat pipe, customer facility, R&D, power transaction, quality control, power plant operation, repair, etc.	8,099	6,207	6,848
In-depth job	Expert nurturing courses by field, future experts nurturing courses, etc.	39	44	38
General competence	Digitalization, change innovation, customer satisfaction, ethical management, labor-management relations, etc.	4,651	4,172	3,488
Total		13,603	11,018	11,029

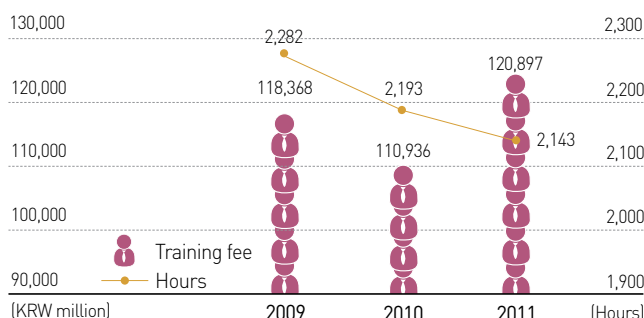
## ● Performance-based annual salary system

KDHC continuously maintains employment stability by operating a performance-based salary system; it not only uses accumulated experience but also gains the effect of employment creation. Through internal evaluation, we differentially raise salary through cumulative calculation and conduct performance-based annual salary system using management evaluation performance-based pay and in-house performance-based pay.

### Females' Ratio and Female Managerial Position Ratio (upper positions)

Category	2008	2009	2010
Total number	1,096	1,132	1,200
No. of females	107	111	111
Females' ratio (%)	9.8	9.8	9.3
Total number of managerial positions	490	508	528
No. of female managers	16	17	17
Female manager ratio (%)	3.3	3.3	3.2

### Education/Training Hours and Fees for the Past 3 Years

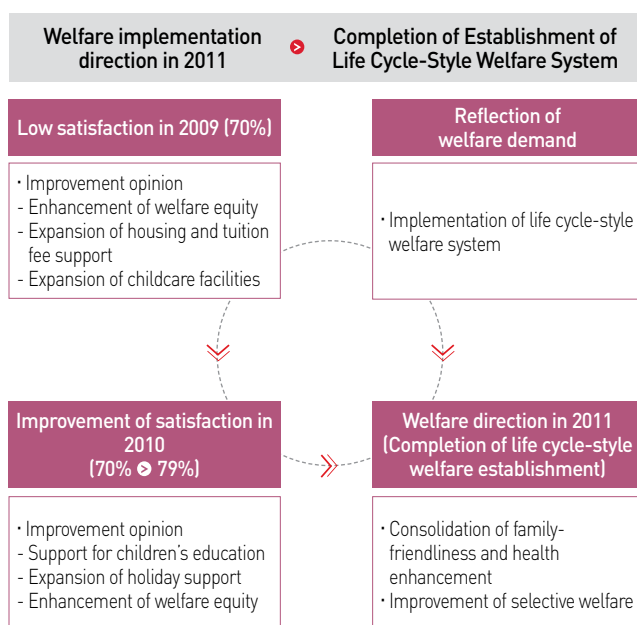


## ● Employees' self-development

KDHC actively copes with changes in internal and external management conditions including fierce competition in the domestic community energy supply business and change of industrial structure and operates expert nurturing programs to lead the industry.

### ● Fringe benefit system

This benefit system to embody corporate welfare promoting balance between work and life along with the enhancement of employee satisfaction enables us to operate various welfare programs such as stable living support, healthy life support, and family-friendly welfare by life cycle stage. Through the welfare satisfaction survey each year, KDHC identifies various types of welfare demand of employees and adopt and expand welfare programs focused on the improvement of quality of life. As of 2010, we have improved the loan criteria for housing fund; we operate a Health Up health enhancing program to prevent cerebral and respiratory diseases, and we also implemented the expansion of workplace childcare facilities.



### ● Retirement pension system

KDHC manages retirement allowances by setting them as the account of reserve for retirement allowances to guarantee the stable old age life of retired workers. Reserve for retirement allowances stood at KRW 16.7 billion in 2010 (defined benefit type: KRW 15.3 billion; defined contribution type: KRW 1.4 billion), accounting for 23% of the KRW 72.9 billion annual labor cost. We subscribed to retirement pension of 9 retirement pension businesses. In 2010, we introduced this system by converting the existing retirement insurance system into the retirement pension system.

# 2, 3

### Matters Supplemented in KDHC's Fringe Benefits

Category	Welfare demand	Improvement
Stable living by life cycle stage	Housing loan	Loan criteria for housing fund improved in Aug. 2010 - Preferential loan service for household with 3 or more of children and employees supporting their parents
	Tuition fee	Abolishment of partial subsidy of tuition fee for collegian children from welfare fund Financial consulting service in April 2010 - Support for financial planning consulting by life cycle stage
Family-friendly welfare support	Childcare expense	Implementation of workplace childcare facility expansion - Increase in childcare demand in the northern area of the Seoul Metropolitan Area (set up in 2011) Support expansion for those on childrearing leave - Expansion of leave period: (1 year → 3 years)
		Medical expense
Healthy life support	Cerebral and respiratory diseases	Consolidation of follow-up care of medical checkup - Consolidation of examination items to prevent cerebral and respiratory diseases

### Fringe Benefit System in 2010

Category	Details
Stabilization of stable living by life cycle stage	Loan for living stability fund
	Housing loan
Leisure support	Support for collective accident insurance and medical expenses
	Support for recreational facility (condo)
Family-friendliness	Operation of in-house club
	Operation of workplace childcare facilities
	Execution of family culture experience event
Health management	Operation of maternity protection lounge
	Execution of tailored medical checkup
	Visiting health management service
	Precise physical strength checkup and expert's exercise guidance
	Employee aid program (EA) operation



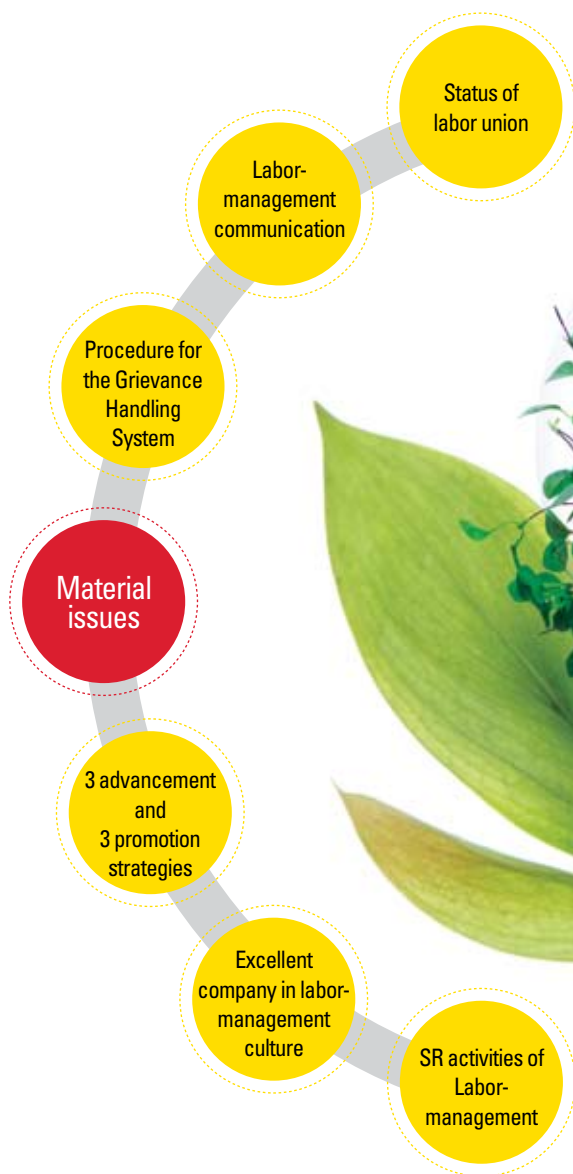
# We Report

- **Vision and strategy**

KDHC makes great efforts to overcome crises and deliver happy energy between KDHC and labor union. Labor and management strive to improve irrational practices between labor and management and collective agreements through labor-management cooperation based on compliance with the government's guidelines. Through various and cooperative communication channels of labor-management, we embody a more efficient work process.

- **Depts. in charge within the organization**

Labor & Welfare Team : Collective bargaining and Labor management





# Labor-Management Communication

## 1

KDHC makes great efforts to establish rational and lawful industrial relations based on labor-management relations of "practical field work," "principle and truth," "labor-management advancement," and "trust and reliability." We are doing our very best to prevent all possible labor-management conflicts by frequently holding labor-management meetings to solve key disputable issues.

### ● Status of the current labor union

KDHC guarantees labor union members' free union activities under the three rights of labor -- the Labor Union and Labor Relation Adjustment Act and Collective Agreement Membership Clause ? as guaranteed by the Constitution. Our labor union was launched on May 24, 1993, and it adopts a union shop system wherein all employees with rank of department managers and lower can be members of the union, except employees of the HR, Labor, and Audit Depts. As of the end of 2010, the number of labor union members stood at 1,022, and membership ratio is 100% of the membership object. KDHC's labor union is a member of upper-level organizations such as the "Korean Confederation of Trade Unions/Confederation of Public Transport Trade Unions. Our labor union organization consists of 14 chapters including the head office chapter. The operation organization consists of General Assembly, Representative Committee, Steering Committee, Regular Business Execution Committee, and Accounting Auditor.

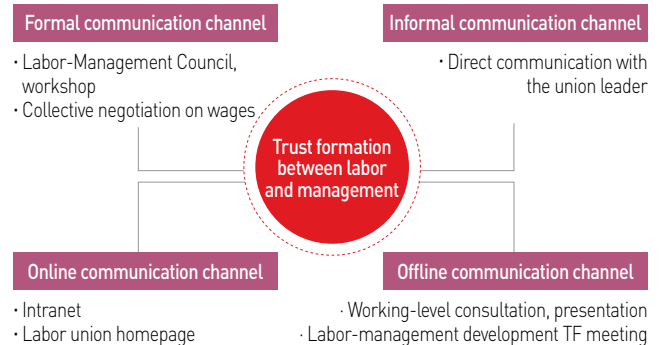
\* Union shop : An employer can employ a laborer regardless of whether or not he/she is a labor union member. Once the person is employed, however, he/she must become a labor union member.

Category	2008	2009	2010
Total no. of employees	1,096	1,132	1,120
No. of union members	942	959	1,022
Union members (%)	85.9	84.7	85.2

### ● Cooperative labor-management communication

KDHC operates the various communication channels it established to form sympathy between labor and management. Through a program of visiting the sites of construction branch and operation branch, we collect a variety of opinions and reflect them on work for management efficiency including job simplification and process improvement. Through "Open Talk Time," we operate a free face-to-face communication program between the President and employees of KDHC. Likewise, a Daily Communication System wherein internal employees share and freely present company policies is operated for the 50th session, and we regularly carry out informal gatherings with the labor union leader. KDHC conducts labor-management field debate, joint seminar between labor and management, labor-management council, and labor-management development TF meeting and strives to carry out two-way communication activities actively between employees and management.

### Labor-Management Communication System



### Status of Labor-Management Communication Operation

Channel	Open talk time	Daily Communication System	Visit to Sites of Construction Branch and Operation Branch	Labor-Mgt. Mgt. Informal Gathering for Discussion	Labor -Mgt. Cooperation Debate	Labor-Mgt. Council	Labor- Mgt. Joint Seminar	Labor-Mgt. Development TF Operation Meeting
No. of cases	Every two months	50 sessions	Some 20 times	Once a year	Once a year	Four times	Once a year	Each month



# Labor-Management Communication

## ● Grievance handling system to prevent labor-management conflicts

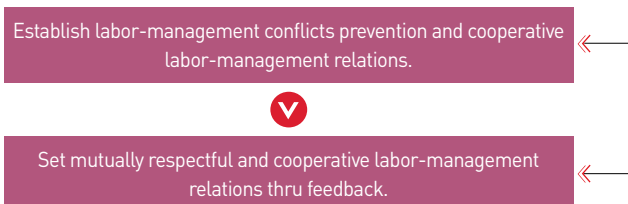
KDHC operates a Grievance Handling System to solve personal conflicts and grievances as a fundamental activity to prevent labor-management conflicts. The grievance handling counseling room is operated on/offline. We strive to solve the grievances of employees, including private life-related issues, working environment, and field-centered, general grievances in various ways.

Through the system, we can enhance labor-management stability and employee's personal satisfaction, along with job performing capabilities.

## ● 3 advancement and 3 promotion strategies for the advancement of industrial relations

KDHC established "3 advancement and 3 promotion strategies" linked with top 9 mid- and long-term strategies for the advancement of industrial relations. We spearhead the advancement of labor-management relations through cooperative labor-management relations sharing performance and risks with 3 advancement strategies -- "advancement of philosophy, advancement of strategy, and advancement of framework" -- and 3 promotion strategies having the concept of execution: "utilitarianism, mutual development, and field-centered." We also signed a wage agreement without negotiations for 3 years in a row since 2007. With all these, KDHC signed an essentially maintaining work agreement, and it can supply stable heat supply service to Korean people without suspension of work as a normal consequence of disputes

### Feedback System of 3 Advancement and 3 Promotion Strategies



### Procedure for the Grievance Handling System



### Counseling Operation Room for Grievance Handling

Category	Head office	Branch
Designated place	Mgt. Support Dept. (Counseling Room)	Customer Service Team (Counseling Room)
Other places	<ul style="list-style-type: none"> <li>Labor union office</li> <li>Female employees' lounge (Sexual Harassment Counseling Room)</li> </ul>	<ul style="list-style-type: none"> <li>Labor union chapter office</li> <li>Branch manager's office (Sexual Harassment Counseling Room)</li> </ul>

### Yearly Grievance Handling Operation Results

(Unit: case)

Category	2008	2009	2010
Raised	63	55	38
Handled	48	45	32
Unhandled	15	10	6
Satisfaction (%)	76.1	81.8	84.2

● **Excellent company in model labor-management culture**

KDHC received a certificate of excellent company in labor-management culture from the Employment and Labor Ministry in 2010 by putting the model win-win labor-management culture into practice through labor-management partnership. KDHC received excellent evaluation through financial support for social company fostering, devising new employment sources, specific programs for balance between work and home and the prohibition of discrimination on the grounds of age especially discrimination of the aged.

We will spearhead the continuation of win-win culture wherein the employees and KDHC thrive together through dynamic activities such as social contribution and volunteering activities for the socially underprivileged, social contribution matching fund, and employment expansion via cooperation between labor and management.

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Prize awarding ceremony for socially responsible companies with excellent labor-management relations

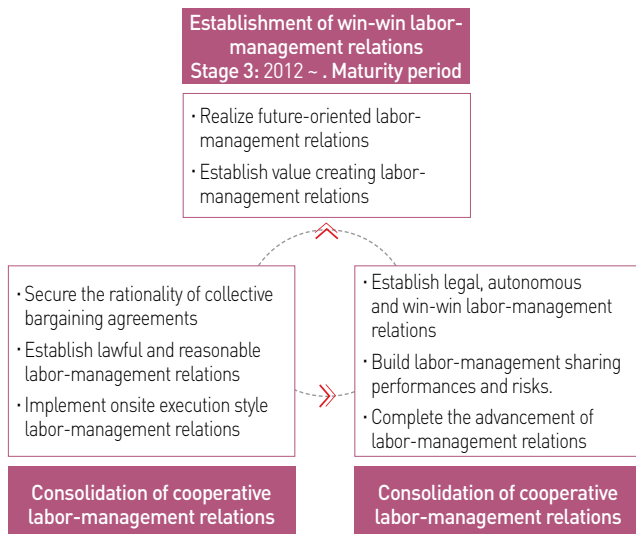
**Social Responsibility Activities of Labor-Management**

Consideration for the underprivileged	Socially equitable employment	Social contribution service in "Private/Public Third Sector Mode"
<ul style="list-style-type: none"> <li>• Full exemption from basic heating service rate</li> <li>• Campaign of Heating Expenses Support with Love on MBC Radio's Women's Era</li> <li>• Campaign to Spend Winter with Love Briquette Delivery and Heating Facilities Repair</li> </ul>	<ul style="list-style-type: none"> <li>• Employment of socially underprivileged for the first time ever among public corporations</li> <li>- Low income bracket, patriotic casualties, disabled people, socially good-doers, patriots</li> </ul>	<ul style="list-style-type: none"> <li>• Building residential facilities for the elderly living alone to prepare measures for livelihood protection</li> </ul>

**Results of Labor-Management Communication**

KPI	Unit	Yearly performance and target		
		2008	2009	2010
Satisfaction on grievances handling	%	76.1	81.8	84.2
Satisfaction in the welfare area	%	-	38	51.0
Satisfaction in the wage/salary area	%	65	61	62.5
Satisfaction on labor-management relations	%	-	-	81
No. of communication channel operations	Cases	7channels (101cases)	11channels (120cases)	10channels (130cases)
No. of revision of collective bargaining agreements	Clauses	0	16	13
Labor-management dispute	cases	No dispute	No dispute	No dispute
Wage/salary increase rate	%	3%	Fixed	Fixed

**Labor-Management Development Roadmap**



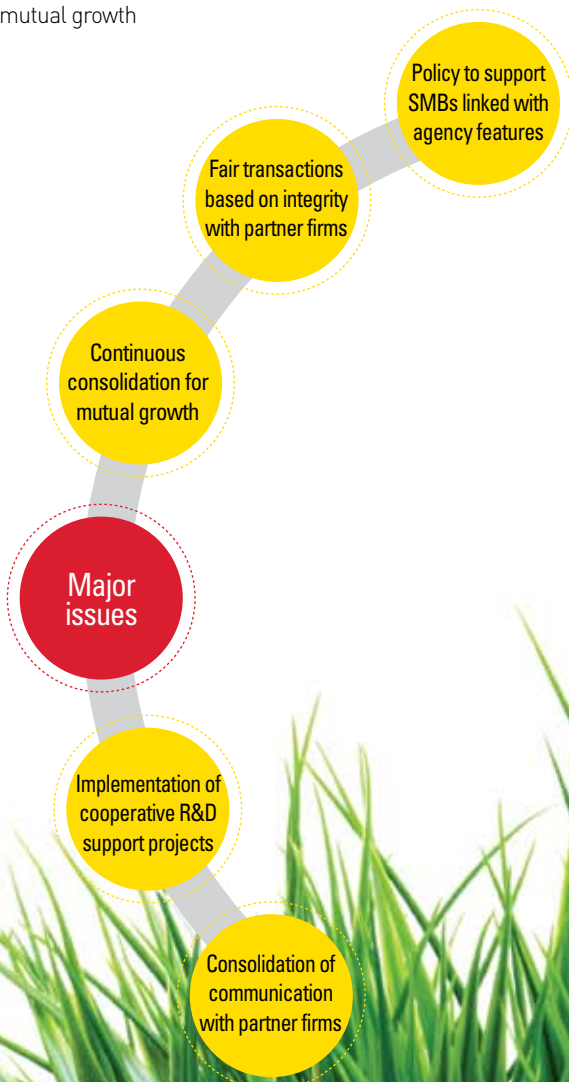
# We Report

- **Vision and strategy**

KDHC set as its objective for 2010 the “activation of small and medium businesses (SMBs) and realization of low carbon, green growth through national competitiveness consolidation.” We seek to fulfill our social responsibilities as a public corporation and build a win-win network through our mutual growth policy with SMBs. We also create win-win synergy effects via various systems such as fair bid participation together with partner firms and direct payment system of subcontract money based on integrity.

- **Dept. in charge within the organization**

Mutual Growth Team : Construction, services, and purchases contracting, support for partner firms, and supervision of business related to mutual growth



## Interview

Bae Seong-ho [Green Growth Korea] \_ Win-Win Cooperation sector

KDHC grows together with partner firms in communities based on transparent procedure implementation and equal participation opportunity guarantee. Through various channels including informal gatherings with partner firms, we exchange opinions with them and gain their trust with clean transaction. Thanks to KDHC's R&D investment in mainly SMBs, we greatly contribute to communities. Our win-win cooperation system through the sustainability management of our partner firms enables us to grow remarkably together with our partner firms in the future.



# Mutual Growth with Partner Firms 1

- **Implementation of policies to support SMBs combined with agency features**

KDHC carries out various support policies including the expansion of opportunities for SMBs' participation in bids, direct payment of subcontract money, and activation of separate order placing.

- **Expansion of SMBs' participation in bids for win-win development**

We greatly expanded opportunities for SMBs' participation in heat pipe construction by increasing the estimated price from less than KRW 5 billion to less than KRW 30 billion. With the simplification of contract stages, we create win-win effects including cost savings, construction quality improvement for KDHC, and actual order amount increase and solving of low subcontract amount problem for SMBs. KDHC selects partner firms fairly through open bids and puts limits in contracting against firms incurring social criticism.

- **Implementation of direct payment system for subcontract money based on integrity management**

For the construction orders placed by KDHC, the order placer (client) directly pays subcontract money based on an agreement signed between the client, large enterprise, and subcontractor targeting construction projects with estimated price of KRW 30 billion.

\* Client's purchase and supply of materials : A client purchases materials en masse and supplies them to the contracted construction company. Through this system, costs can be reduced, and problems in material purchase can be solved by forming an efficient supply line between a parent company and a subsidiary. The parent company can help its subsidiary comply with the due completion date, thereby promoting mutually efficient management.

- **Activation of separate order placing for support increase for SMBs**

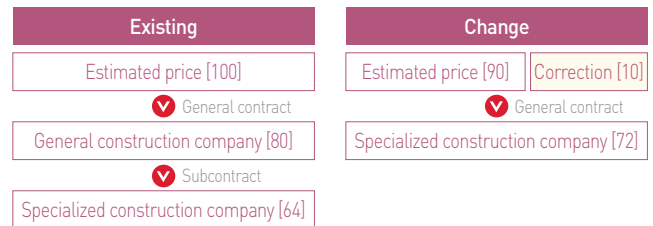
KDHC expands actual support for SMBs through the direct purchase of materials for construction from the existing blanket order placing since the construction amount ratio is huge. In 2011, we purchased construction materials worth KRW 11.5 billion and separately placed orders for materials with KDHC-purchased materials worth KRW 10.4 billion except legal items.

### Results of Contract SMBs' Products in 2010

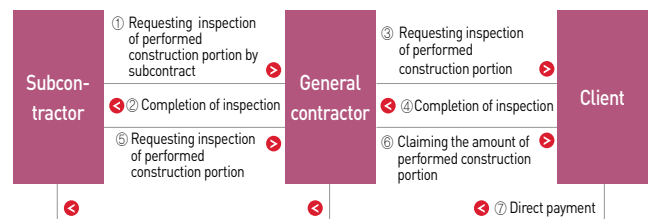
[Unit: cases, KRW million]

Categor	No. of cases			Amount		
	Total	SMBs	Ratio (%)	Total	SMBs	Ratio (%)
Construction	342	296	86.5	512,094	69,157	13.5
Service	437	385	88.1	31,407	23,234	74.4
Purchase	443	410	92.6	200,599	82,887	41.3
<b>Total</b>	<b>1,222</b>	<b>1,091</b>	<b>89.3</b>	<b>744,100</b>	<b>175,278</b>	<b>23.6</b>

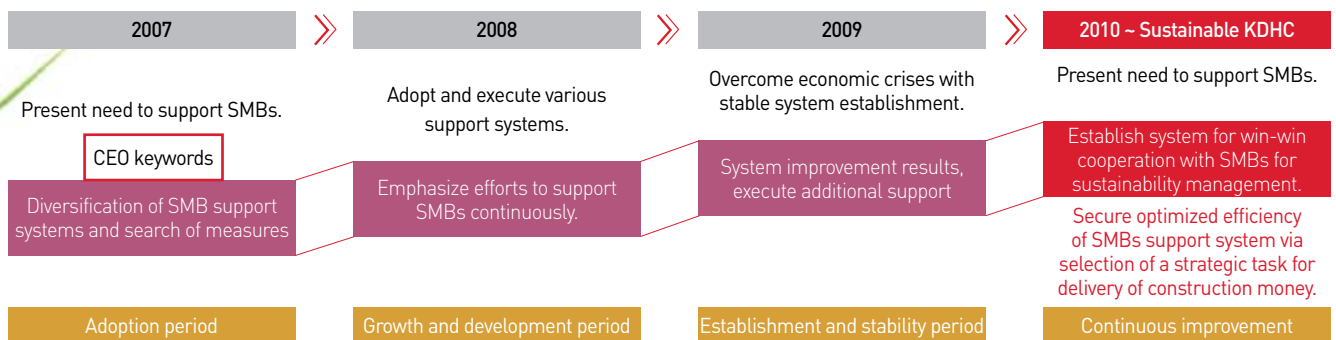
### Win-Win Effects Between KDHC and Specialized Construction Companies



### Procedure for Directly Paying Subcontract Money



### Development Stage to Support SMBs





## Mutual Growth with Partner Firms

### ● Operation of TFT for mutual growth with SMBs

KDHC endeavors for the effective implementation of measures for mutual growth between large enterprises and SMBs and disseminates a mutual growth culture. Since September 2010, we have been operating a TFT for win-win cooperation with SMBs, an enterprise organization to execute "Mutual Growth." This way, we do our best for win-win cooperation with SMBs by establishing policies to support SMBs and devising the relevant measures. Thanks to such efforts, we were selected as an excellent agency in the assessment of support for SMBs in 2010.

### ● Performance sharing system for consolidation of win-win cooperation

KDHC has been sharing its achievements through cost savings, quality improvement, new products development, and patent application since 2007 through joint innovation efforts with SMBs. Through an agreement of patent execution right permission for the wireless communicative heat pipe monitoring system, KDHC collects royalty, with the partner firms creating new sales. Concerning the 2-phase absorption-type refrigerator development case, we awarded our patent execution right to five SMBs free of charge for district cooling service market activation. This way, we bolster win-win cooperation with SMBs through the continuous expansion of the achievement sharing system.

#### Achievement sharing of wireless communicative heat pipe monitoring system development (Unit: KRW million)

KDHC: Royalty ratio [3% of net sales of a product]			
2007	2008	2009	2010
36	64	67	38

SMBs: Patent execution right-permitted product sales			
2007	2008	2009	2010
1,208	2,130	2,246	1,274

#### Status of Means to Support SMBs

- ① · Reorganization of infrastructure to enhance support system execution along with active participation in government's support policies  
· Innovative improvement of various support systems for win-win cooperation with SMBs
- ② · Offering SMB support information through various channels  
· Configuring HR for cooperative activities (tailored support) with SMBs
- ③ · Enforcement of technology and financial support using KDHC's external credibility  
· Consolidation of technology development support for SMBs' sales channel development on the public benefit enhancement dimension  
· New product development promotion based on conditional purchase utilizing know-how and implementation of achievement sharing system
- ④ · Bolstering linked industry information offering and continuous feedback through patternization of SMBs' claim handling

### ● Marketing support service for overseas sales channel development

KDHC carries out overseas marketing support service targeting SMBs manufacturing materials and equipment in the district heating field. We provide up to KRW 5 million support per company, which helps enhance SMBs' overseas marketing capabilities and international competitiveness.

#### Results of Overseas Marketing Support (Unit: KRW million)

Category	Details	Support expenses
2008	Supporting participation in the German District Heating Expo in Bremen, Germany	5
2009	Supporting participation in the Vietnamese ENTECH 2009	2.5
2010	Supporting participation in the Busan International Environment and Energy Industry Exhibit	1.9

### ● Purchase expansion of SMB products through technology development, eco-products, and products made by Physically-challenged people

With continual preferential purchase of 6 types of products made through technology development certified by the government, we contribute to SMBs' sales channel development and the promotion of technology development. In 2010, we actively complied with the government policy by achieving more than the 10% legal mandate purchase ratio (11.9%). Furthermore, we make contributions to economic independence support and product's environment competitiveness for the socially underprivileged by preferentially purchasing the products made by them.

\* 6 types of products made by technology development : NEP, Net, excellent procurement, performance certification, GS, purchase-conditional newly developed products

#### Results of Purchase of Eco-Products and Products Made by (Unit: KRW million)

Category	Result in 2009	Plan in 2010	Result in 2010	Ratio (%)
Eco-products	1,137	901	1,423	158.0
Products made by	460	365	812	222.1

### ● Operation of tailored financial support system

KDHC assists its partner firms that are having difficulties in securing production fund through tailored financial service that they can select, such as partnership loan and public purchase loan. We plan to increase financial support by continually publicizing the financial support system for existing and new partner firms.

### Financial Support System for SMBs

Category	KB Partnership Loan	Public Purchase Loan
Summary	Signed with Kookmin Bank in Sept. 2006, supported SM Bs with construction records with KDHC	Organized by the Small and Medium Business Administration; offered credit loan for production fund based on contract relations
Features	Credit-focused loan assistance, prime interest rate for contract amount; loan can be made regardless of period	Frequent assistance within the contract period, lower interest rate compared with general loan, up to 80% assistance except for advanced receipts
Support amount since 2007	KRW 12 billion for 11 companies	KRW 870 million for 3 companies

#### ● Purchase-conditional new product development project to secure stable sales channel

KDHC implements a purchase-conditional new product development project wherein KDHC supports SMBs' technology development for external materials and new products and mandatory purchase of those developed products via private contract for a certain period. Through this, we support SMBs' technology innovation and contribute to foreign currency savings.

#### Status of Purchase-Conditional New Products Development

Development period	Purchase-conditional newly developed products	No. of participating companies	Purchase amount (amount actually paid)	
			Before 2010	2010
2004	Dual lagging pipe of supply and recovery	4	KRW 1.5 billion	KRW 18 million
2007	Heat pipe field lagging part air plug	1	KRW 23 million	KRW 2 million
	Flexible absorbent at the curve part of a heat pipe	1	KRW 3.49 billion	KRW 419 million
2010	Turbine Stationary Unit	1	-	KRW 200 million (2011)

#### ● Cooperative R&D project to preempt innovative technologies

KDHC subsidizes the technology and research expenses of various SMBs through the establishment of Guidelines for SMBs Support. We assist district heating-related companies with R&D department or affiliated research center and software developers and candidate startups with new technologies including intellectual property rights in the district heating field within the limit of 75% of research expenses or up to KRW 200 million. Currently, a "multiroom control hybrid dehumidifying cooling system" is developed through cooperation between the industry, academe, and research sectors including 4 SMBs. We help ease SMBs' research expenses burden and aid in core technology preemption through the patent application of SMBs.

# 2, 3

#### ● Use of technology deposit system to prevent technology leak

For SMBs' technology leak prevention and stable technology use of KDHC, four software development technical data developed since 2009 were deposited to a third party agency. We induce the use of this system by specifying this deposit system upon bid notice for software development.

#### Status of Software Deposit

System name	Deposit date	Deposit agency
Integrated VOC system	June 17, 2010	
Heat pipe information system	July 28, 2010	Korea Copyright
e-monitoring system	October 7, 2010	Commission
Construction information management system	April 15, 2011	

#### ● Miscellaneous cooperation and assistance

KDHC strives for manpower exchange, technology training, and opinion collection with SMBs. We also support co-penetration into foreign markets through technology guidance for SMBs as well as overseas market development through ODA projects. In addition, we hand down management innovation methods via quality management system establishment and prior technology guidance for companies wishing to participate in a bid. We operated various opinion collection channels with SMBs as well including communication between KDHC CEO and presidents of specialized construction companies, cooperation arena, integrated VOC system, and cyber Shinmoongo.

\* ODA (Official Development Assistance) : Loans offered as donation or permitted by public agencies including central and local governments to developing countries or international organizations to develop the economies of developing countries and enhance their welfare



# Appendix

Beautiful Fruits of  
Happy Energy

## Sustainable Growth for the Company

KDHC makes new milestones beyond its current status.

Like a tree producing healthy fruits each year,  
overcoming storms and droughts, KDHC continuously grows,  
creating new achievements each year.



# Third-Party Assurance Report KDHC's 2010 Sustainability Report

## To: The management of KDHC

### ● Assurance scope

BSI Group Korea Limited ("BSI") has received a request for the independent assurance of the 2010 Sustainability Report from Korea District Heating Corporation ("KDHC").

The scope of this assurance includes KDHC's domestic places of business including the head office and three divisions. KDHC's subsidiaries and the following inclusions in the report have been excluded from this assurance:

- Financial information
- Data on greenhouse gas emissions (We have checked and found that separate assurance was conducted.)
- Additional information posted on the homepage, not in the report

### ● Responsibility and independence

KDHC is fully responsible for drawing up the sustainability report. The assurance responsibility involves offering an independent assurance Report to the management of KDHC by applying assurance methodology in relation to the specified scope and providing such information to its stakeholders.

The BSI Assurance Team ("BAT") has no interest in KDHC for the purpose of gaining profits, and it has not engaged in drawing up the report except offering assurance opinion. Assurance has been carried out by BAT (consisting of experts in each field boasting of broad technologies, know-how, and many years of experience so that BAT can exercise high level of competencies according to BSI's code of conduct for fair transactions).

### ● Assurance Standards

The assurance of this report has been conducted based on the following standards:

- AA1000 Assurance Standard (2008)
- GRI G3.1 Sustainability Report Guidelines

BAT has complied with the principles of inclusivity, materiality, and responsiveness and has carried out reliability assessment of sustainability performance information by applying AA1000 AS(2008) Standard's type 2 moderate level. BAT has used GRI's indices as auxiliary standard by applying the application level A.

### ● Methodology

BAT has used the methodology developed to establish the relevant evidence to comply with assurance standards and reduce errors in the details of the report. This way, BAT has carried out the following activities:

- Review of materiality decision process of KDHC and conformance check to decide the assurance priorities
- Review of sustainability strategy implementation process and system to execute the process
- Interview with the senior management with liability of managing sustainability issues and employees and review of selection of grounds and conformance backing up the debated issues

- Creation and collection of data by performance area and confirmation of the reporting process
- Review on whether the financial information and greenhouse gas emissions report match the audit report and greenhouse gas emissions validation report
- Independent assessment of KDHC's report to cope with the applicability level of the GRI Guidelines

### ● Opinion

BAT has reviewed the draft of the report and presented an opinion, with the revision of the report made as necessary. Based on the assurance activities that have been carried out, BAT has not found improperly described parts in terms of KDHC's compliance with the reporting principles and sustainability performance in this report.

BAT has confirmed that the GRI indices specified in the GRI Index are reported perfectly or partially in this report as a result of the materiality test process. With the electric power business of KDHC expanded, the application of the Electric Utility Sector Supplement has been attempted and is likely to be applied formally in next year's report. BAT has confirmed that this report meets G3.1's A+ applicability level of the GRI Guidelines.

### BAT presents the following opinion within the scope that does not affect the assurance results :

KDHC has established measures to reduce greenhouse gas emissions to cope actively with sustainability issues including national policy of low carbon, green growth, climate change, and depletion of energy and has set the new and renewable business as a future growth engine. In this context, KDHC has devised a strategy to maximize business opportunities using waste incineration heat and landfill gas. All in all, KDHC clearly demonstrates its commitment to sustainability management.

KDHC was listed with the stock market in January 2010. The corporation's ethical and transparent organization operation and active response to social responsibility -- through which KDHC carries out social contribution and sharing management ? are considered to be the foundation for building a social responsibility management system and winning the trust and support of the Korean people as a public corporation.

### Inclusivity is a principle to guarantee stakeholder engagement to develop a responsible and strategic method for coping with sustainability.

Inclusivity is a principle to guarantee stakeholder engagement to develop a responsible and strategic method for coping with sustainability.

BAT has confirmed that KDHC carries out the stakeholder engagement process and makes great efforts to collect various stakeholders' opinions and reflects them on its sustainability policy. KDHC has established patterned channels to communicate with each stake-

holder group; the systematized stakeholder questionnaire and priority setting on feedback have been of great help in deciding the details of the report.

The consolidation of inclusivity and responsiveness is judged to be the key motivation to bolster core capabilities in the sustainability management of KDHC. BAT advises KDHC to disclose the inclusiveness and responsiveness by segmenting and expanding them by stakeholder group.

BAT recommends that KDHC operate a sustainability management committee affiliated with the board of directors to consolidate stakeholder engagement and sustainability issues management further and bolster the sustainability management governance system. BAT judges that organization members' abilities can improve in terms of sustainability issues, and that sustainability management governance can be reinforced by cyclically reporting sustainability issues and checking the implementation process.

**Materiality involves selecting the issues for stakeholders to decide regarding KDHC and its impacts based on information.**

BAT has confirmed that sustainability management issues identified among the stakeholders through the materiality test and core issue selection process are developing into sustainability management strategies. KDHC has used the VOC (voice of customer) system to identify sustainability management issues and executed stakeholder communication, questionnaire surveys, and media analyses and has drawn material issues of KDHC's internal and external stakeholders.

KDHC diversifies fuel supply sources from fossil fuels to new and renewable for sustainable growth as an eco-friendly energy corporation based on its establishment purposes of compliance with climate change agreements, energy saving, enhancement of Korean people's conveniences and benefits, and tackling of external and technological environment change. In addition, KDHC expands its business area to power and cooling services on the basis of heat supply service. Moreover, the fact that KDHC handles new and renewable development and activities with great importance to reduce greenhouse gas emissions identified as key issues is noteworthy. The corporation implements social contribution activities including energy welfare service by dividing them into business, community, and volunteering sectors according to its vision of "building a happy energy world together with communities." KDHC carries out various social contribution activities continuously, not just temporarily.

Nonetheless, it may be desirable to compose the report such that there is mutual linkage between management policies, strategies, and key issues reflected on internal and external opinions and performance indicators of major activities to enhance stakeholders' understanding. BAT recommends that KDHC include future targets -- in addition to past performance information -- so that the readers can forecast KDHC's short-term performance and policy direction on individual sustainability issues.

**Responsiveness is a principle concerning the scope of an organization's response to stakeholder issues.**

The report describes the issues identified through communication with stakeholders and situation to respond to those issues. BAT has confirmed that KDHC properly responded to the material issues through various communication channels.

In addition, including the organization's ability to consolidate responsibility, detailed strategy, training, procedure, and monitoring can be more effective as well as controlling all these in relation to each aspect of economic, social, and environmental sustainability management to express DMA (disclosure on management approach) more scrupulously.

In this report, KDHC's efforts to explain the relatively positive aspects and develop them further in each business area are exhibited. At the same time, if the report describes negative issues and specifies concrete plans to solve them, it will also be of help to the improvement of balance in reporting.

**● Performance Information**

BAT advises KDHC to establish a system of collecting, integrating, and managing performance data by economic, social, and environmental area and combining the system with the internal audit process for the establishment of a system to manage regularly performance vs. objectives and manage the reliability of data.

KDHC needs to change its reporting system so that it can set mid- and long-term objectives on core and material issues identified in the materiality test and carry out continuous and reliable disclosure of performance vs. objectives.

August 10, 2011  
**BSI Group Korea Limited**  
**CEO, Chun Jung-gi**



will be present on your Independent Assurance Opinion  
 your organization's sustainability report or corporate so-  
 ly report once the assuran



**AA1000**  
 Licensed Assurance Provider  
 000-47

# ISO 26000 Compliance Assessment Report



## To: The Management of KDHC

### ● Assessment Criteria

The Korean Standards Association (KSA) has developed a checklist to assess the social responsibility Compliance based on an international standard, ISO 26000, for social responsibility.

This Assessment report presents the Assessment results of KDHC's social responsibility management process and performance by top 7 core subjects.

### ● Assessment Scope

KSA has reviewed and assessed the details of KDHC's ISO 26000 Compliance as follows:

- KDHC's sustainability management policies, systems, and practices
- KDHC's sustainability management activities and performance

### ● Diagnosis Method

KSA has carried out the following activities through data collection related to the ISO 26000 Compliance Assessment criteria:

- Questionnaire survey on the checklist of KDHC's ISO 26000 Compliance Assessment
- Review of KDHC's sustainability report and internal data on activities and performance
- KDHC's stakeholder interview and media survey

### ● Diagnosis opinion on each process of ISO 26000 social responsibility

KDHC is judged to recognize social responsibility through the establishment of CEO management philosophy and mid- and long-term strategy measures for sustainability management based on social responsibility. KSA has confirmed that KDHC clearly identifies various brackets' stakeholders related to KDHC and secures -- and participates in -- various communication channels including employees' participation in meetings and VOC channels with customers.

Through all this, we understand that KDHC executes its mid- and long-term strategies and active communication with each stakeholder. KDHC enhances its reliability through constant sustainability report publication and third-party assurance.

KSA advises KDHC to express externally the enterprise commitment to sustainability management through the establishment, execution, and improvement of constant social responsibility management strategy plans.

## ISO 26000 Summary and System of Checklist Configuration of ISO 26000 Compliance Assessment

ISO 26000 Implementation Level Checklist	Total 1,000 points	
	Process (360 points)	Performance (640 points)
	Making assessments based on the process of building organizational social responsibility systems as presented in ISO 26000 (Recognizing, engagement, analysis, strategy, execution, communication, verification, improvement). Enabling the organization to integrate social responsibility into its current management systems and to improve it continuously.	Diagnose organization's performance level concerning ISO 26000's top 7 core themes (organization governance, human rights, labor practices, environment, fair operation practices, consumer issues, community participation, and development). Help the organization easily understand the concepts and terms used for the top 7 core themes, 37 issues and activities, and expectations by issue, and evaluate whether the organization implements them.

Process diagnosis (8 steps)			Assessment of achievement(7 core subjects)		
Stage 1	Social responsibility recognition	Step 1 Recognizing social responsibility Reviewing the current status based on the commitment of CEO	Integrate social responsibility into overall organizations	Organizational governance	Activities of respecting the principles of social responsibility and integrating them to business practices
Stage 2	Stakeholder identification and engagement	Step 2 Stakeholder identification and Engagement Reviewing stakeholders' interests and expectations and setting up engagement strategies		Human rights	Activities of respecting and protecting the human rights within an organization and its scope of influence.
Stage 3	Core themes and issues analysis	Step 3 Analysis of core subjects and issues Listing up the issues by reviewing the issues and analyzing internal capability		Labour practices	Policy and practices influencing the labour environment of employees of an organization and its subcontracted organizations
Stage 4	Establishment of priorities and execution strategies	Step 4 Setting priorities, strategies and plans Prioritizing the issues that need to be improved and managed taking account of organization's capability		The environment	Activities of integrated approach to decrease the impacts of an organization to the environment by taking account of the meaning of organization's decisions and activities.
Stage 5	Execution	Step 5 Execution Executing the strategies, vision, goals and implementation plans and monitoring the performance of social responsibility regularly		Fair operating practices	Activities of giving attention to the ethical behavior of the transactions between an organization and other organizations such as partners or suppliers
Stage 6	Communication	Step 6 Communication Communicating with stakeholders through the issuance of performance reports		Consumer issues	Activities of protecting consumers' rights such as consumer education, fair and transparent marketing information and contract, sustainable consumption promotion, etc
Stage 7	Assurance	Step 7 Verification Activities and reports to enhance the credibility of performance		Community involvement and development	Activities of trying to maximize the resources and opportunities while recognizing and respecting the right of the community
Stage 8	Improvement	Step 8 Improvement Reviewing performance regularly and building on it continuously			

KSA is a special corporation established under the Korea Industrial Standardization Act in 1962. As a knowledge service agency disseminating industrial standardization, quality management, sustainability management, and KS/ISO certification to companies, KSA is Korea's ISO 26000 administrative agency, appointed GRI education agency, AS1000 assurance provider, Korea Sustainability Index (KSI) operating agency, UN CDM operating body, and greenhouse gas and energy target management assurance body contributing to Korean society's sustainable development.

● **Diagnosis Opinion on the Top 7 ISO 26000 core subjects**

The assessment Team of KSA has assessed the implementation level by top 7 core themes based on KDHC's self-assessment checklist of the ISO 26000 compliance.

**Organization governance**

KSA has confirmed that KDHC recognizes core values on social responsibility issues and has a commitment to implement them. For its mid- and long-term management strategies, KDHC has prepared a base through which employees can carry out decision making on the basis of social responsibility by establishing a social responsibility management system. KDHC establishes detailed implementation tasks and applies social responsibility principles when analyzing the core subjects and issues of social responsibility.

**Human rights**

KSA has confirmed that KDHC strives to prevent human rights risk situations of its internal and external stakeholders. To guarantee various stakeholders' human rights, KDHC basically prohibits discrimination in the case of offering services and reflecting requirements. KDHC guarantees internal stakeholders' basic rights and operates a grievance solving system to prevent human rights infringement in advance. All these are outstanding activities to guarantee human rights.

**Labor Practices**

KDHC carries out a model HR system based on social responsibility through a method of gradually increasing the employment ratios of the underprivileged, science and engineering graduates, and experts. Through the life cycle management welfare system, KDHC has enhanced employees' satisfaction with the working condition, encouraging self-development through various education/training programs for employees. All these are remarkable achievements.

**Environment**

KSA has confirmed that KDHC strategically copes with "low carbon, green growth" and issues of climate change and depletion of energy. Likewise, KSA has confirmed that KDHC actively copes with climate change through combined heat and power plants that can produce heating/cooling energy and power and activities to reduce greenhouse gas emissions and new and renewable business using various types of waste.

The fact that KDHC spearheads energy saving with various policies including internal employee's campaign to wear long johns has been evaluated as excellent.

**Fair operation practices**

KSA has confirmed that KDHC executes fair transactions with a variety of stakeholders including partner firms through the subcontract money direct payment system and policy of separately placing orders. KDHC's external activities that can promote social responsibilities within KDHC's influence sphere -- based on internal integrity activities via an anticorruption policy -- are considered to be model activities for KDHC's fair transaction operation.

**Consumer Issues**

KDHC's collection and reflection policy for opinions from all walks of life including call center operation for continual communication with various stakeholders is judged to be a huge advantage of the organization.

KDHC's maintenance and repair activities to supply stably power and heating and cooling service -- which are essential services for citizens -- and crisis responsiveness system have been evaluated as excellent.

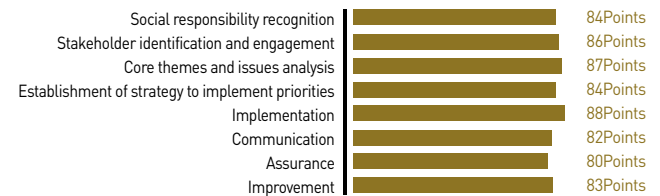
**Community participation and development**

KDHC's social contribution activities including energy welfare -- combined with KDHC's features -- are considered remarkable. Continuous and specific volunteering activities such as heat rate reduction & exemption, "Spend Winter with Love" campaign, "Happiness Sharing Corps," and "Arium" regular volunteering for the elderly living alone have been confirmed to contribute greatly to community development.

● **Conclusion of Assessment**

As a result of the ISO 26000 Compliance Assessment, KDHC has been confirmed to carry out cooperative sustainability management by establishing balanced systems. KSA advises KDHC to draw and supplement continually the linkage and integrity of mid- and long-term strategies and social responsibility activities, consolidate capabilities to implement them, and enhance performance in the future.

**Results of Social Responsibility Process Diagnosis**



**Results of Social Responsibility Diagnosis**



August 22, 2011  
Kim, Chang-ryong  
KSA Chairman & CEO

김창룡

# GRI G3.1 / ISO 26000 Index

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
	Stakeholder engagement principle	6.8.2	Community engagement	32-33	●		
	Boundary protocol	6.6.5	Promotion of social responsibility within value chain	4	●		
<b>Strategy and Analysis</b>							
1.1	Statement from the most senior decision-maker of the organization.	6.2	Governance of Organization	6-7	●		
1.2	Description of key impacts, risks, and opportunities.	6.2		22-25, 34-35	●		
<b>Organizational Profile</b>							
2.1	Name of the organization.			13	●		
2.2	Primary brands, products, and/or services.			16-17	●		
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	6.2	Governance of Organization	13, 17	●		
2.4	Location of organization's headquarters.			13	●		
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.			13, 16-17	●		
2.6	Nature of ownership and legal form.			18-19	●		
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).			16-17	●		
2.8	Scale of the reporting organization.			13, 18	●		
2.9	Significant changes during the reporting period regarding size, structure, or ownership.			18-19	●		
2.10	Awards received in the reporting period.			8-9	●		
<b>Report Parameters</b>							
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.			4	●		
3.2	Date of most recent previous report (if any).			4	●		
3.3	Reporting cycle (annual, biennial, etc.)			4	●		
3.4	Contact point for questions regarding the report or its contents.			4	●		
3.5	Process for defining report content.			32-35	●		
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.			4	●		
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).			4	●		
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.			4	●		
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.			4	●		

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).			4	●		
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.			4, 10-11	●		
3.12	Table identifying the location of the Standard Disclosures in the report.			Appendix	●		
3.13	Policy and current practice with regard to seeking external assurance for the report.	7.5.3	Assurance	Appendix	●		
<b>Governance, Commitments, and Engagement</b>							
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	6.2		18-19	●		
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	6.2		18-19	●		
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	6.2		18-19	●		
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	6.2		18-19	●		
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	6.2		18-19	●		
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	6.2		18-19	◐		
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	6.2	Governance of Organization	18-19	●		
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.	6.2		26-27	●		
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	6.2		19	●		
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	6.2		19	●		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	6.2		18-19	●		
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	6.2		6, 27	●		



# GRI G3.1 / ISO 26000 Index

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	6.2		Appendix	●		
4.14	List of stakeholder groups engaged by the organization.	6.2		32-35	●		
4.15	Basis for identification and selection of stakeholders with whom to engage.	6.2	Governance of Organization	32-33, 35	●		
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	6.2		32-35	●		
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.	6.2		32-35	●		
<b>Disclosure on Management Approach EC</b>							
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	6.8/6.8.3/ 6.8.7/6.8.9	Community engagement and development/ Community engagement/ Creation of wealth and income/ Social investment	60-61	●		
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	6.5.5	Ease of and adaptation to climate change	50-51, 62-63	●		
EC3	Coverage of the organization's defined benefit plan obligations.	6.4.4/6.8		78-79	●		
EC4	Significant financial assistance received from government.			—	—	Not material	Benefit amount is extremely small.
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	6.4.4/6.8	Working conditions and social protection/ Community engagement and development	77	●		
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	6.6.6/6.8/ 6.8.5/6.8.7	Promotion of social responsibility within value chain/ Community engagement and development/ Creation of wealth and income/ Social investment	—	—	Not applicable	N/A
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	6.8/6.8.5/6.8.7	Community engagement and development/ Creation of wealth and income/ Social investment	—	—	Not applicable	N/A
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	6.3.9/6.8/6.8.3/ 6.8.4/6.8.5/6.8.6/ 6.8.7/6.8.9	Economic, social and cultural rights/ Community engagement and development/ Community engagement/ Education and culture/ Self-development and access/ Creation of wealth and income/ Social investment	40-45	●		
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	6.3.9/6.6.6/6.6.7 /6.7.8/6.8/6.8.5/ 6.8.6/6.8.7/6.8.9	Economic, social and cultural rights/ Promotion of social responsibility within value chain/ Respect of property rights/ Access to essential services/ Community engagement and development/ Employment creation and function development/ Self-development and access/ Creation of wealth and income/ Social investment	62-63	●		

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
Disclosure on Management Approach EN							
EN1	Materials used by weight or volume.			49	●		
EN2	Percentage of materials used that are recycled input materials.			49	●		
EN3	Direct energy consumption by primary energy source.			49	●		
EN4	Indirect energy consumption by primary source.			49	●		
EN5	Energy saved due to conservation and efficiency improvements.			52	●		
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	6.5/6.5.4	Environment/Use of sustainable resources	56-57	●		
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.			52,54	●		
EN8	Total water withdrawal by source.			51	●		
EN9	Water sources significantly affected by withdrawal of water.			51	●		
EN10	Percentage and total volume of water recycled and reused.	6.5/6.5.4		51	●		
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.			—	—	Not applicable	No protected area.
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	6.5/6.5.6	Environment/ Environmental protection, diversity and natural habitat restoration	—	—	Not applicable	No protected area.
EN13	Habitats protected or restored.			—	—	Not applicable	No protected area.
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.			—	—	Not applicable	No protected area.
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.			—	—	Not applicable	No protected area.
EN16	Total direct and indirect greenhouse gas emissions by weight.			54	●		
EN17	Other relevant indirect greenhouse gas emissions by weight.	6.5/6.5.5	Environment/ Ease of and adaptation to climate change	—	—	Not applicable	No other indirect greenhouse gas emissions.
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.			54-55	●		
EN19	Emissions of ozone-depleting substances by weight.			—	—	Not applicable	No ozone destroying materials
EN20	NOx, SOx, and other significant air emissions by type and weight.			51	●		
EN21	Total water discharge by quality and destination.			51	●		
EN22	Total weight of waste by type and disposal method.	6.5/6.5.3	Environment/Pollution prevention	51	●		
EN23	Total number and volume of significant spills.			—	—	Not applicable	No hazardous materials emissions.
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.			—	—	Not applicable	No waste taken out to abroad.

# GRI G3.1 / ISO 26000 Index

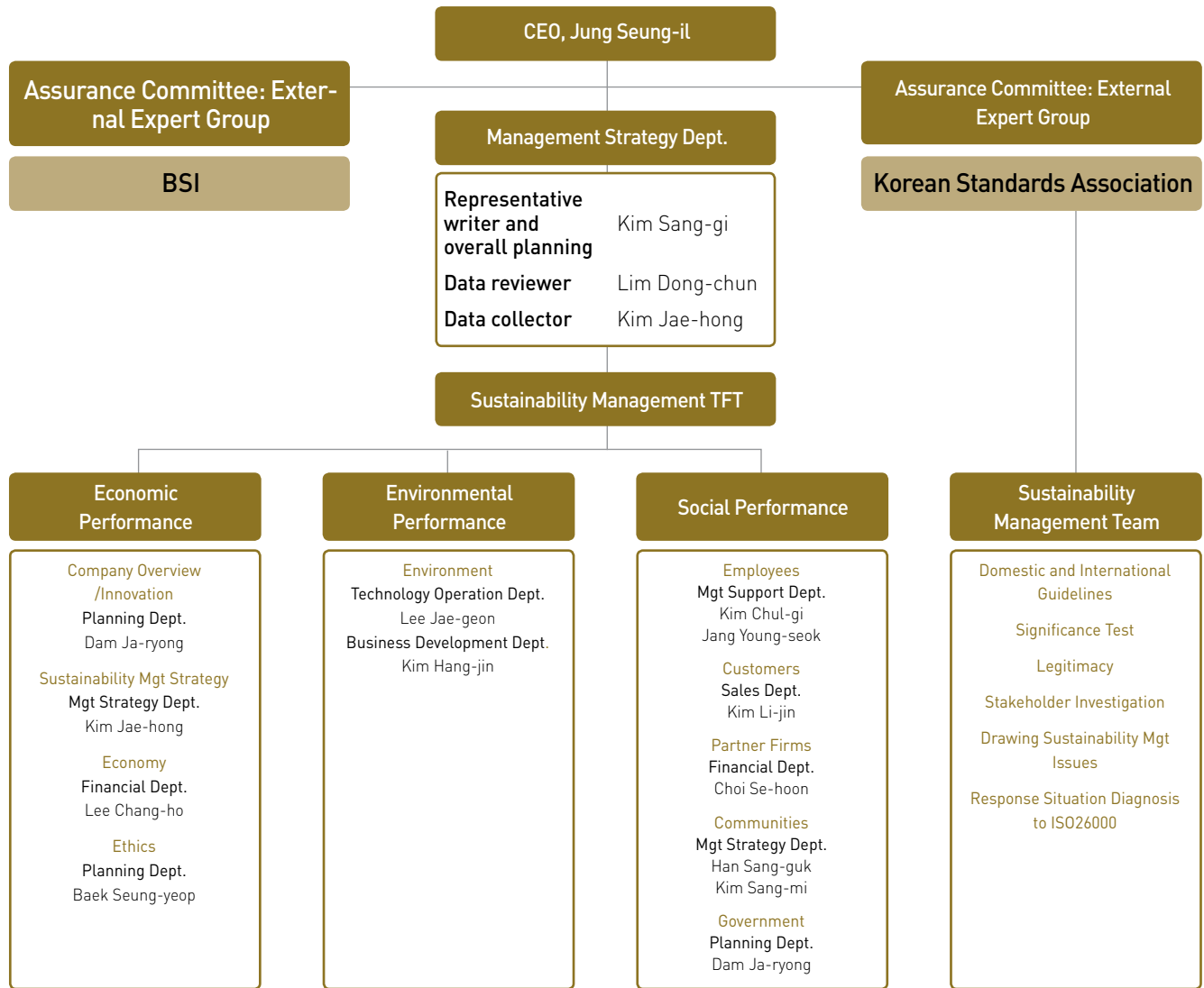
GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	6.5/6.5.4/6.5.6	Environment/ Use of sustainable resources/ Environmental protection, diversity and natural habitat restoration	—	—	Not applicable	No ecological area affected by waste water.
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	6.5/6.5.4/ 6.6.6/6.7.5	Environment/ Use of sustainable resources/ Promotion of social responsibility within value chain/ Sustainable consumption	48-57	●		
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	6.5/6.5.4/6.7.5	Environment/ Use of sustainable resources/ Sustainable consumption	—	—	Not applicable	No recycling of products and packing materials.
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	6.5	Environment	52	●		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	6.5/6.5.4/6.6.6	Environment/ Use of sustainable resources/ Promotion of social responsibility within value chain	53	●		
EN30	Total environmental protection expenditures and investments by type.	6.5	Environment	50	●		
<b>Disclosure on Management Approach LA</b>							
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	6.4/6.4.3	Labor practices /Employment and employment relations	77	●		
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.			77	●		
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	6.4/6.4.3/6.4.4	Labor practices /Employment and employment relations	79	●		
LA4	Percentage of employees covered by collective bargaining agreements.	6.4/6.4.3/6.4.4 6.4.5/6.3.10	Labor practices/Employment and employment relations /Working conditions and social protection	81	●		
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	6.4/6.4.3/ 6.4.4/6.4.5	Labor practices/Employment and employment relations/ Working conditions and social protection/social conversation/ Basic principles and rights in working	—	—	Not applicable	Specify in Company Regulations..
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.	6.4/6.4.6	Labor practices/Employment and employment relations / social protection	79	●		
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.			—	—	Not applicable	No occurrence.
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	6.4/6.4.6/6.8/ 6.8.3/6.8.4/6.8.8	Labor practices/ Safety and health in working/ Community engagement and development/ Community engagement / Education and culture/ health	—	○	Not available	
LA9	Health and safety topics covered in formal agreements with trade unions.	6.4/6.4.6	Labor practices/ Safety and health in working	79	●		
LA10	Average hours of training per year per employee by gender, and by employee category.	6.4/6.4.7	Human development and training at work				
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	6.4/6.4.7/6.8.5	Labor practices/ Human development and training at work/ Employment creation and function development	79	●		
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	6.4/6.4.7	Labor practices/ Human development and training at work	78	●		

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	6.3.7/6.3.10/ 6.4/6.4.3	Discrimination and underprivileged brackets/ Basic principles and rights in working /Labor practices/ Employment and employment relations	77-78	●		
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	6.3.7/6.3.10/ 6.4/6.4.3/6.4.4	Discrimination and underprivileged brackets/ Basic principles and rights in working /Labor practices/ Employment and employment relations/ Working conditions and social conversation	—	—	Not applicable	The same amount is paid without gender discrimination
LA15	Return to work and retention rates after parental leave, by gender.		Prohibition of discrimination against underprivileged brackets/ Economic, social and cultural rights guarantee of company and community	—	○	Not available	
<b>Disclosure on Management Approach HR</b>							
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	6.3/6.33/6.3.5/ 6.6.6	Human rights/Actual inspection/ Avoidance of collusion/Promotion of social responsibility within value chain	83	●		
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	6.3/6.3.3/6.3.5/ 6.4.3/6.6.6	Human rights/Actual inspection/ Avoidance of collusion/ Employment and employment relations/ Promotion of social responsibility within value chain	83	●		
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.	6.3/6.3.5	Human rights /Avoidance of collusion	28	●		
HR4	Total number of incidents of discrimination and corrective actions taken.	6.3/6.3.6/6.3.7/ 6.3.10/6.4.3	Human rights/Grievance solving/ Discrimination and underprivileged brackets/ Basic principles and rights in working/Employment and employment relations	—	—	Not applicable	No case by company.
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	6.3/6.3.3/ 6.3.4/6.3.5/6.3.8/ 6.3.10/6.4.3/6.4.5	Human rights/Actual inspection/ Risk situation of human rights/Civil rights and Political rights/ Respect of property rights	81	●		
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	6.3/6.3.3/6.3.4/ 6.3.5/6.3.7/6.3.10	Human rights/Actual inspection/ Risk situation of human rights/Avoidance of collusion// Discrimination and underprivileged brackets/ Basic principles and rights in working	—	—	Not material	N/A under the domestic law.
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.		Human rights /Avoidance of collusion/ Employment and employment relations/ Promotion of social responsibility within value chain	81	●		
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	6.3/6.3.5/ 6.4.3/6.6.6	Human rights/Grievance solving/ Discrimination and underprivileged brackets/ Basic principles and rights in working/Employment and employment relations	28	●		
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	6.3/6.3.6/6.3.7/ 6.3.8/6.6.7	Human rights/Actual inspection/ Risk situation of human rights/Civil rights and Political rights/ Respect of property rights	—	—	Not applicable	No violation case.
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.		Actual inspection/ Risk situation of human rights	—	—	Not material	Assessment of the same human right impacts
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.		Grievance solving	—	—	Not applicable	No civil petition case.
<b>Disclosure on Management Approach HR SC</b>							
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	6.3.9/6.8/ 6.8.5/6.8.7*/6.6.7	Economic, social and cultural rights/ Community engagement and development/Employment creation and function development/Creation of wealth and income/Respect of property rights	67	●		

# GRI G3.1 / ISO 26000 Index

GRI	Details of index	ISO 26000	Core themes and disputes of ISO 26000	Pages	Application	Reasons of exclusion	Additional description
S02	Percentage and total number of business units analyzed for risks related to corruption.			29	●		
S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	6.6/6.6.3	Fair operation practices/Anti-corruption	28	●		
S04	Actions taken in response to incidents of corruption.			—	—	Not applicable	No corruption case took place.
S05	Public policy positions and participation in public policy development and lobbying.			14-15	●		
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	6.6/6.6.4/6.8.3	Fair operation practices/ Responsible political engagement/ Community engagement	—	—	Not applicable	No engagement in political activities.
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	6.6/6.6.5/ 6.6.7	Fair operation practices/Fair competition/ Respect of property rights	—	—	Not applicable	No legal action case.
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	6.6/6.6.7/6.8.7*	Fair operation practices / Respect of property rights/ Creation of wealth and income	—	—	Not applicable	No violation case of law.
S09	Operations with significant potential or actual negative impacts on local communities		Community engagement and development	—	—	Not applicable	No negatively influencing business takes place.
S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.		Community engagement and development	—	—	Not applicable	No negatively influencing business takes place.
<b>Disclosure on Management Approach PR</b>							
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.	6.3.9/6.6.6/ 6.7/6.7.4/6.7.5	Economic, social and cultural rights/ Promotion of social responsibility within value chain/ Consumer issue/consumer's safety and health protection/ Sustainable consumption	74	●		
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.			—	—	Not applicable	No violation case.
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	6.7/6.7.3/6.7.4/ 6.7.5/6.7.6/6.7.9	Consumer issue/Fair marketing, factual and unbiased information and fair contracting practices/Consumer's safety and health protection/Sustainable consumption/Consumer service support and complaints and disputes solving/ Education and awareness enhancement	73-75	●		
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.			—	—	Not applicable	No violation case.
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	6.7/6.7.4/6.7.5/ 6.7.6/6.7.8/6.7.9	Consumer issue/ Consumer's safety and health protection/Sustainable consumption/Consumer service support and complaints and disputes solving/ Access to essential services/Education and awareness enhancement	71	●		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	6.7/6.7.3/ 6.7.6/6.7.9	Consumer issue/Fair marketing, factual and unbiased information and fair contracting practices/Consumer's safety and health protection/Consumer service support and complaints and disputes solving/Education and awareness enhancement	75	●		
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.			—	—	Not applicable	No violation case
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	6.7/6.7.7	Consumer issue/ Consumer data protection and privacy	—	—	Not applicable	No customer data loss case takes place
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	6.7/6.7.6	Consumer issue/ Consumer service support and complaints and disputes solving	—	—	Not applicable	No fine-imposing case takes place

# Introduction to Sustainability Management TFT



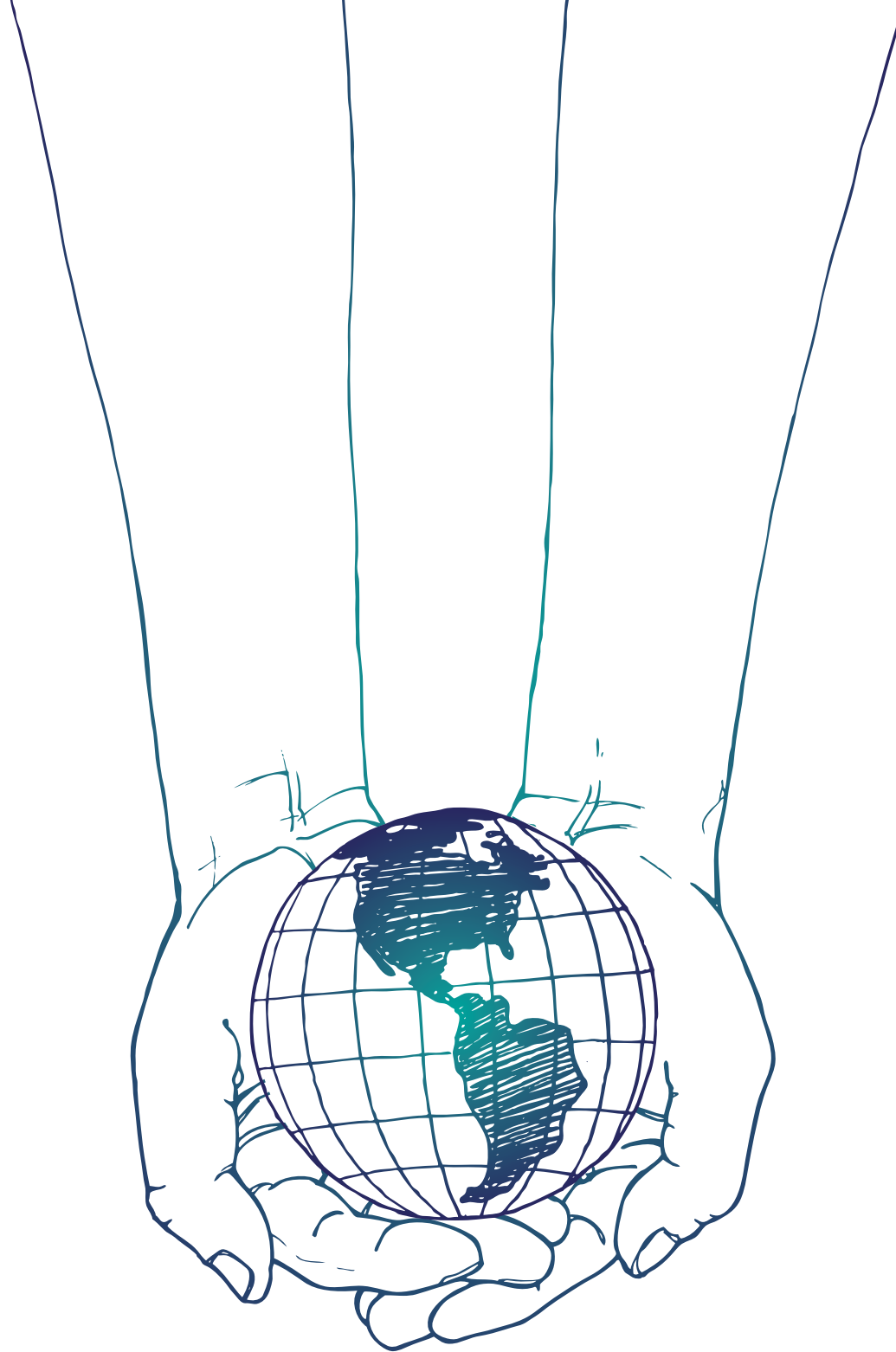
## Participation in Associations and Bodies

**Domestic**

- Korea Resource Economics Association
- Korea District Heating and Cooling Association
- Business Ethics and Sustainability management for Top performance
- Business Ethics and Sustainability management for CEO
- Un Global Compact Network Korea
- Energy and Mineral Resources Development Association Korea
- Korea DME Association
- Korea Power Exchange
- The Korea Institute of Electrical Engineers
- CS Leaders Club

- Korea Environmental Prevention Association
- Korea Federation for Environmental Movements
- Korea Society of Environmental Engineers
- Korea Society of Energy and Climate Change
- Korea Construction Engineers Association
- Korea Electric Engineers Association
- International Institute of Refrigeration Korea Committee
- The Society of Air-conditioning and Refrigerating Engineers of Korea
- The Korea Society for New And Renewable Energy
- Korea Management Association
- Korea Personnel Improvement Associate
- Management Accounting Association of Korea

- Korean Accounting Association
  - Korea Fair Competition Federation
  - The Korea International Trade Association
  - Korea Plant Industries Association
  - The Institute of Internal Auditors of Korea
  - Korea Industrial Safety Association
  - Korea Fire Safety Association
- Overseas**
- WEC(World Energy Council)
  - IDEA(International District Energy Association)
  - FFI(Ferrowarme Forschungs Institute)
  - Euro Heat & Power
  - IEA-DHC



## The Best Environment - Friendly Energy Company

KDHC does not live for the present.

We are committed to striving for and researching continuously on building a happy energy world and doing our very best to become a clean company contributing to citizens' convenient living and national economic growth, based on our expertise and experiences.

# Readers' Opinions

## Questionnaire Survey on the 2010 KDHC Sustainability Report

KDHC cordially asks for your valuable opinions for the production of better sustainability reports in the future by listening to various stakeholders' opinions including the readers of this report.

### 1. In which category do you belong?

- Employee     Shareholder     General investor     Business partner     Public official  
 Social organization including NGO     Sustainability management expert     Media     Academe     Others

### 2. What part of the report are you most interested in?

- Company Profile     Investment Information     Sustainability Management     Financial Performance  
 Environmental Management     Social Responsibility Management     Status of Employment and Working Environment  
 Customer Management     Win-Win Strategy with Business Partners     Stakeholder Communication

### 3. Rate your degree of agreement to the following by ticking the boxes below:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
• The terms used in the report are clear and easily understandable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• The report offers adequate and useful information on key issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• The details of the report are reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• The design of the report is good, and it aids in the understanding of the report.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 4. Which area do you think requires supplementation by KDHC?

- Company overview     Sustainability management     Ethical management     Economy  
 Social contribution     Environment     Customers     Employees     Partner firms  
 Labor-Management communication     None

### 5. We will refer to your valuable information (sectors: Economy/Society/Environment/Internal Customer Satisfaction, etc.)

- What part of this report has given you the most lasting impression? \_\_\_\_\_  
 • What part or description of this report is useful? \_\_\_\_\_  
 • How satisfied are you with this report?     Very satisfied     Satisfied     Fair     Dissatisfied     Very dissatisfied

### 6. Please feel free to present your candid opinion on KDHC's Sustainability Report.

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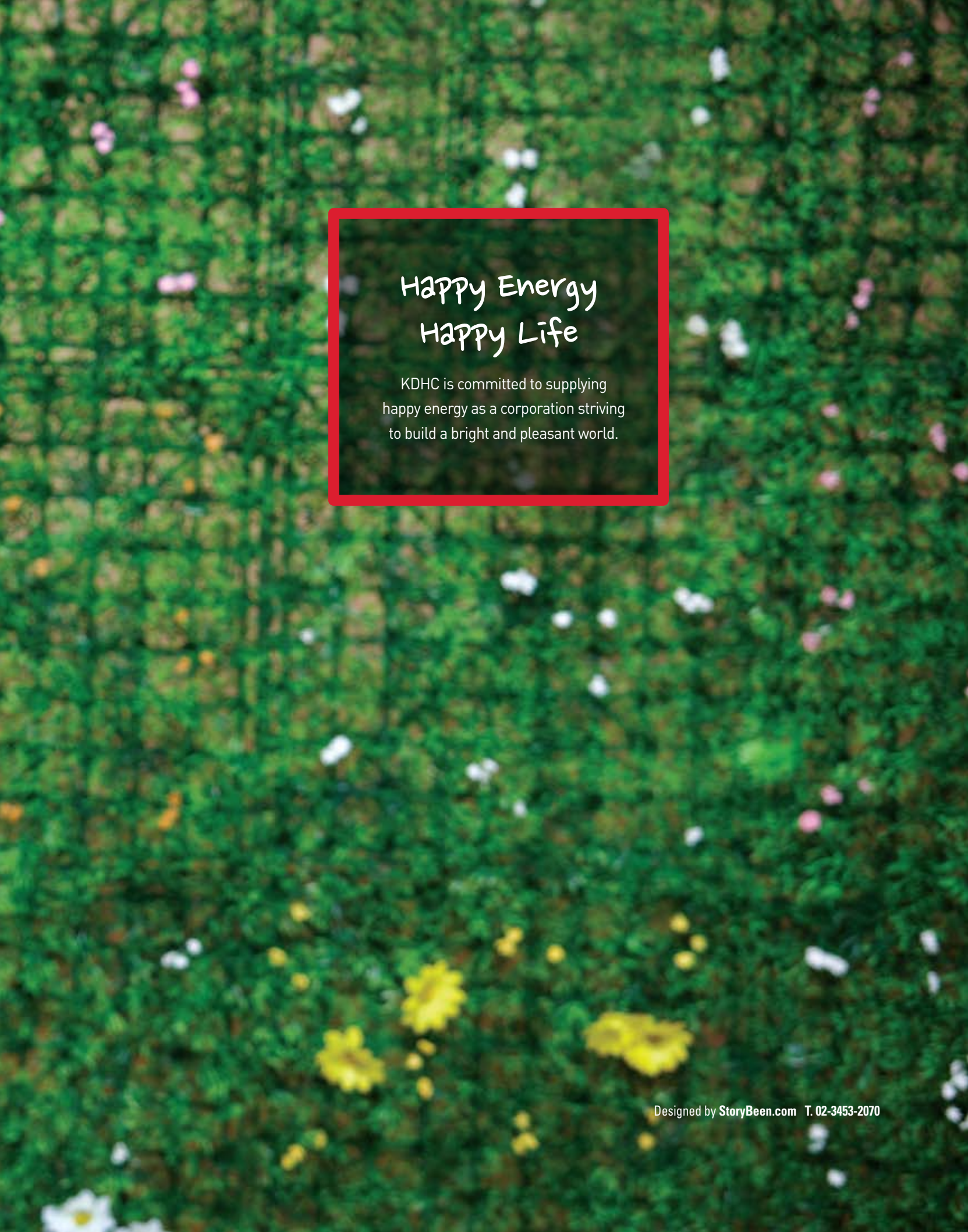


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Please fax your opinion to **031-709-5058**. Thank you for your cooperation.







# Happy Energy Happy Life

KDHC is committed to supplying  
happy energy as a corporation striving  
to build a bright and pleasant world.