



# Value No.1 **Energy & Chemical Partner**

**GS** Caltex 2013 Sustainability Report







Recycled papers and soy ink, certified by Forest Stewardship Council(FSC), was used to print this report.



## **Sustainability that GS** Caltex **pursues**

**GS** Caltex pursues management activities for sustainable growth. To this end, the company builds up trust through communication with various stakeholders and creates economic, environmental, and social values throughout the entire service process. GS Caltex, a corporation representing the energy & chemical industry in Korea, reveals the activities and success of sustainable business operation to stakeholders in a transparent manner, and takes this as an opportunity to obtain feedback from internal stakeholders and make another leap forward.

**Reporting Period** This sustainability report covers the activities and performance from January 1 to December 31, 2013. For the key quantitative performance, the results of the past three years(from 2011 to 2013) are revealed for comparative analysis. The report also mentions some major issues which occurred in the first half of 2014 in order to make these issues public in a timely manner.

**Reporting Scope** The report scope ranges from **GS** Caltex headquarters to key domestic workplaces including Yeosu complex. Some data was derived from the logistics center, lubricant plant, gas stations, filling stations, and affiliated companies. Parts which need to be noted are marked with an asterisk.

**Reporting Principle GS** Caltex 2013 Sustainability Report was written based on the G4 Core Guideline of GRI(Global Reporting Initiative). And we tried to engage the stakeholders in the report and listen to their diverse opinions in compliance with AA1000SES. This report was reviewed by the Company's staff with GRI's official certification and the external specialized agency. Compared to the previous reports, there is not much difference in terms of the report scope, boundary and method of measuring.

Additional Information More information on GS Caltex can be found on our website where you can see or download the sustainability report. If you have any inquiries or need further information, please contact us via the following.

- Point of contact: **GS** Caltex CSR team - Address: GS Tower, 508, Nonhyeon-ro, Gangnam-gu, Seoul, Korea

- Telephone: 82-2-2005-1614
- E-mail: c16895@gscaltex.com



## **Contents**

Introduction	04	CEO's Message
	06	Corporate Overview
	08	GS Caltex Vision
	09	GSC Way
	10	Ethics Management
	11	Corporate Governance Structure
	12	Sustainability Management
	13	Selection of Report Subject
Material	18	Management Activities for Sustainable Growth
Aspects	23	Providing the Best Quality Products and Services for Customers
	28	Environmental Management and Response to Climate Change
	33	Reinforcement and Dissemination of Safety System
	37	Employee Value Enhancement
Special Story	41	Social Responsibility Activities
8		
Appendix	46	Financial Data
Appendix	47	Sustainable Management Performance Data
11.191	49	UN Global Compact
10011	50	GRI G4 Index
	50	
A CONTRACT A CONTRACT OF A CON		

**GS** Caltex promises to develop high quality products, provide valuable services, and become a responsible company as a corporate citizen, through continuous innovation and passion based on its corporate vision, 'Value No.1 Energy & Chemical Partner'. Dear valued stakeholders,

**GS** Caltex is well aware that a company should not only pursue profits but fulfill its various social responsibilities as a corporate citizen in order to achieve sustainable growth. With this in mind, **GS** Caltex engaged in social responsibility programs during 2013, and we have published the ninth sustainability report to share our success and future plan with customers, local communities, and other stakeholders.

Despite the challenging business environment, **GS** Caltex completed the construction of the No.4 HOU(VGOFCC) and made large-scale investments including the completion of the compounded resin plants in Czech Republic and Jinju of Korea in 2013. Moreover, **GS** Caltex announced its new vision of **'Value No.1 Energy & Chemical Partner'** at the beginning of 2014 and is now strengthening internal competitiveness in pursuit of a great new takeoff.

In addition, we have revamped our countermeasures for each scenario in preparation for the prolonged uncertainties and risks in the recent business climate, and we are trying to stick to our basic principles in any given situation. **GS** Caltex seeks to contribute to harmonious social development through continuous interaction and cooperation with our shareholders.

At **GS** Caltex, we continue our efforts to become a truly global corporation that communicates and grows alongside our society. We ask you for your consistent interest and support for our passion for a better future.

Vice Chairman & CEO Jin-Soo Huh



## **Corporate Overview**

GS Caltex, founded in 1967 as the first domestic private oil refiner, has

GS Caltex India Private Ltd.

GS Caltex(Suzhou) Trading Co. Ltd.

GS Caltex Singapore Pte. Ltd.

led the Korean oil refining business and recorded annual sales of about 46 trillion won(based on consolidated financial statement) in 2013. The capital structure of GS Caltex consists of 50% of the shares owned by GS Energy, 40% by Chevron(Overseas) Holdings Ltd. and 10% by Chevron Global Energy Inc.

GS Caltex acts as a stable supplier of refined oil, lubricants, and petrochemical products that provide a powerful engine for domestic industries, and exports oil and petroleum products to twenty countries around the world based on advanced technology and differentiated quality. The company is Korea's No. 1 energy corporation that constantly takes up the challenge to lead the global energy market.

#### **Corporate Overview**

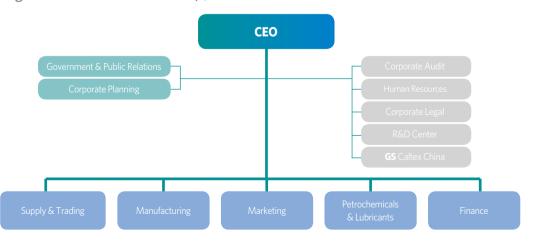
#### As of December 31, 2013 **Overseas Network**

Classification	Content	
Name of company	GS Caltex Corporation	GS Caltex London Branch
	·	GS Caltex(Yantai) Energy Co., Ltd.
Date of establishment	May 19, 1967(incorporated as Honam Oil Refinery Co., Ltd.)	GS Caltex China Co., Ltd.
ocation of headquarters	<b>GS</b> Tower, Nonhyeon-ro 508, Gangnam-gu, Seoul, Korea	GS Caltex(Langfang) Plastics Co., Ltd.
Overseas office(branch)	China, India, Singapore, UK(London), etc.	
No. of employees	3.225	GS Caltex(Jinan) Energy Co., Ltd.
		<b>GS</b> Caltex Czech, s.r.o.
Гуре of business	Crude oil refining business	<b>GS</b> Caltex(Qingdao) Petroleum Co., Ltd.
Field of business	Oil and petrochemical fields	GS Caltex(Qingdao) Energy Co., Ltd.
		GS Caltex Abu Dhabi Branch
		GS Caltex(Suzhou) Plastics Co., Ltd

#### **Shareholders Structure**

Classification	No. of shares	Share ratio	
<b>GS</b> Energy	13,000	50%	
Chevron(Overseas) Holdings Ltd.	10,400	40%	
Chevron Global Energy Inc.	2,600	10%	

#### Organizational Structure As of July 1, 2014



07

#### **Business Domains** Petroleum

**GS** Caltex strives to become a stable domestic supplier of petroleum products through about 2,970 gas stations and 430 filling stations across the country. The company also tries to enhance exports as around 68% of the total sales come from exporting products.

GS Caltex produces high quality petroleum products through advanced automatic production facilities, such as crude distillation facilities with a daily capacity of 775,000 barrels, and facilities to desulfurize diesel and kerosene. The company has continued upgrading facilities to actively respond to the rapidly changing market conditions. It secured a daily process capacity of 268,000 barrels, the largest in Korea, through upgrading facilities by completing the construction of the No.3 HOU(VRHCR) in 2010 and No.4 HOU(VGOFCC) in 2013. Therefore, it has been able to become the ideal oil refinery plant, the Perfect Complex, and is now improving profitability and competitiveness.

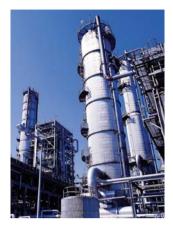
#### Petrochemicals

GS Caltex started the aromatic products business in earnest in September 1990 when it completed the construction of the production facilities with an annual paraxylene capacity of 0.2 million tons and an annual aromatic products capacity of 0.5 million tons. The company has achieved the capacity to produce 2.8 million tons of aromatic products a year (including 1.35 million tons of paraxylene, 0.93 million tons of benzene, 0.17 million tons of toluene, and 0.35 million tons of mixed xylene) through steady expansion of its facilities. Thus, the plant has become one with the world's largest production capacity with the highest competitiveness as a single aromatic product plant. It also plans to achieve sustainable growth by acquiring new investments. GS Caltex began to manufacture PP products in April 1988 when the polypropylene plant with an annual capacity of 0.12 million tons was completed. The plant has achieved a capacity of 0.18 million tons a year through steady expansion of production facilities. Since 2001, the plant has been supplied with polypropylene's raw material, propylene from the RFCC process, allowing stable supply of the material and improved cost competitiveness. Moreover, **GS** Caltex now has a total of 476 thousand tons of propylene production capacity after the construction of VGOFCC enabled an additional 0.25 million tons a year in propylene production. As part of the composite resin business expansion, the company has secured production bases(GS Caltex(Langfang) Plastics in 2006, GS Caltex(Suzhou) Plastics in 2010, GS Caltex Czech in 2011, and GS Caltex Jinju composite resin plant in 2013) and continues to seek new markets for growth.

#### **Base Oil and Lubricants**

GS Caltex's base oil facilities are capable of producing 26,000 barrels per day and export more than 70% of the produced base oil to overseas markets. The company meets strict requirements for automobile and industrial lubricants by producing environmentally friendly, high quality base oil with the state-of-the-art Hydrocracker method.

GS Caltex's lubricant business division produces 9,000 barrels of lubricants a day and 8,000 tons of grease products a year. It is recognized for its excellent product quality, owning the largest sales volume and highest market share in the domestic lubricants market. Moreover, GS Caltex is trying to explore new overseas markets after the establishment of the Indian branch in 2010, and plans to continuously expand its market share and sales.









## **GSC** Way



## **GS** Caltex Vision

**GS** Caltex's corporate vision serves as the most powerful motive

and energy to consistently move toward goals in this tough business environment.

After gathering various opinions and holding in-depth discussions, GS Caltex declared its new vision to encourage all staff members to blend their capabilities with enthusiasm in January 1, 2014.

## **GS** Caltex Vision

## Value No.1 Energy & Chemical Partner

#### 1. Value No.1

We will be recognized as the world's We will develop and expand our leading value creating company by providing top-quality products and services to customers, delivering the highest and offering an industrial engine, stable supply of resources, and social contribution to the nation and society, and giving opportunities to enjoy growth and a happy and rewarding life to members of society.

Vision Statement

lission &

Core Value

#### 2. Energy & Chemical

business into a wide range of fields including energy products and services and chemical products and solutions, most consistent profitability to investors, beyond our existing lubricants and petrochemical products.

## 3. Partner

We will not simply exist as 'a company' but act as a close partner that supports and shares the growth of all stakeholders.

Our mission is to deliver quality products and services by developing the potential of energy & chemical resources.

We are committed to increasing our capacity to generate environmentally responsible and innovative new values.

As a global energy & chemical company, we are passionate about growing with our partners and helping the world move forward.

GS Caltex found it necessary to share the integrated and consistent common framework(principle) with all employees with the aim of achieving the company's vision and management goals, as well as of proactively preparing for future changes in market conditions. With this in mind, the company established GSC Way, through which it is realizing its vision.

## **Corporate Values**

bey	Trust	Fulfil one's role, trust and respect one another.
	Flexibility	Welcome diversity with an open mind and behavior.
œ	Challenge	Set high goals and pursue them aggressively.
đ	Excellence	Strive for excellence in individual and organizational performance

## **Core Behaviors**



Think ahead and be the first to act

Strategically utilize and external resources and capabilities

Deliver tangible results

11

## **Corporate Governance**

Directors(BOD).

**Composition of the BOD** 

The recommendations for director nominees are made in accordance with the respective internal procedures and guidelines of both shareholders, and the final appointment is made at the General Meeting of Shareholders. The BOD is composed of ten directors who possess professional expertise and risk management capabilities; three from **GS** Caltex, one from **GS** Holdings, one from GS Energy, and five from Chevron.

**Operation and Compensation of the BOD** As our Board members are from GS Caltex, GS Holdings, GS Energy, and Chevron, their executive compensation schemes follow the internal policies of the respective company, and the members are not compensated separately for their BOD activities. The Board resolutions require an affirmative vote of more than two-thirds of all registered directors, as stated in the Articles of Incorporation. To ensure the independent operation of the BOD and prevent any possible conflicts of interest, Board members are prohibited from exercising their voting rights on agenda items that are of special

interest to them

The Board Support Office provides support to the directors on all Board matters, including preparation of agenda for Board meetings, through proactive communication and cooperation with related divisions and regular meetings with Chevron resident director. Board members are provided with meeting materials at least one week before the actual meeting to ensure enough time to review the agenda items. Seven Board meetings were held in 2013 to review and make decisions on key agenda items such as the 2014 Business Plan, No. 3 Product Wharf Project and No. 4 PX Project.

#### **Committees under the BOD**

BOD operates three separate committees including the Accountability Committee, Audit Committee(different from the audit committee under the commercial code), and LNG Procurement Management Committee. Committee members are selected at the BOD meeting after all the Board members are appointed at the annual General Meeting of Shareholders. A total of six committee meetings were held in 2013.

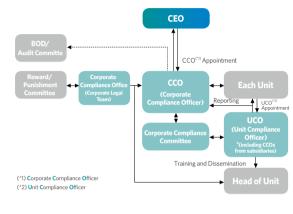
## **Ethics Management**

GS Caltex places top priority on ethical management and makes

all-out efforts to perform all its business activities in a fair and transparent manner. It announced its code of ethics and has applied it to all corporate activities that have an impact on customers, partners, employees, shareholders, the nation, society, and the world. Based on the CEO's commitment to ethical management, GS Caltex continues its efforts to form a companywide consensus on ethical management and to incorporate transparency and honesty into its corporate culture.

Voluntary Compliance System and Relevant Training

**GS** Caltex appointed the CCO(Corporate Compliance Officer) for efficient execution of the voluntary compliance system and the UNOs(Unit Compliance Officer) in each division and subsidiary to create and execute voluntary compliance policies and realize follow-up management. The Corporate Compliance Committee composed of the CCO and UCOs supervises and encourages ethical management activities at workplaces twice every year. The committee's performance is reported to the Board of Directors in a transparent manner. All employees of **GS** Caltex receive the CCP(Corporate Compliance Program) training in a yearly mandatory course: they learn the issues that they must understand and related tasks they must perform, including basic ethics, fair trade, sexual harassment prevention, information security, and internal transactions.



**GS** Caltex

3,026

159

3 185

Unit: person

Partner

44

44

#### **Employee CCP Education Performance**

Classification

Online

Offline

Total

#### **Ethical Management Expansion**

**GS** Caltex revised the practical code of ethics and the voluntary compliance rules with the aim of expanding the application range of the voluntary compliance program to overseas subsidiaries and of strengthening the responsibilities and roles of the UCOs. The company required all employees to sign the pledge of

voluntary compliance, and sent 3,451 of these official documents to ask its client companies and partners to comply with GS Caltex ethical management policy targeting national holidays. It also issues the monthly ethical management webzine 'Ethics Virus' to help employees raise their awareness of ethics.

The ethics counseling channel is run for telephone/e-mail consultation regarding ethical management-related inquires or ethical dilemmas that can arise from transactions with GS Caltex. The Ethics Management Hotline allows internal employees and stakeholders to come forward with information or to report the violation of ethical management polices by employees, unethical practices, irregularities, and unfair transactions. The personal data of informants is protected and kept confidential, and informants can also provide anonymous tips about any unethical practices.

🕿 Ethics Management Hotline : 82-2-2005-6011 🕿 Grievance Settlement(reporting sexual harassment) : 82-2-2005-6012 🛛 : ethics@gscaltex.com

#### **Compliance with the Fair Trade Law**

With the growing importance of fair trade, GS Caltex set up the 'advance review system for fair trade law compliance' in December 2009. This review system makes it mandatory for relevant departments to examine transactions with a risk of fair trade law violation, in advance. This aims to minimize the risks of legal violation and to further clarify employee obligations in abiding with the law by proactively managing various issues related to fair trade. GS Caltex has continued to strengthen its management of this system, receiving no punishments from the Fair Trade Commission in 2013.

#### **Future Plan**

GS Caltex plans to improve and expand the employee on/offline training course to provide more substantial and effective programs. The company strives to raise the ethical awareness of all agents in the value chain. As part of this effort, it runs the voluntary compliance program in overseas subsidiaries and supports partners with ethical management practices based on the revised practical code of ethics and voluntary compliance rules.

Sound corporate governance is a prerequisite to corporate competitiveness and fundamental to healthy and sustainable development of the company. GS Caltex is committed to securing reliability and transparency in management activities through the decision-making system led by the Board of

#### **BOD Members**

(as of April 2014)

Title	Name	Position
Inside	Dong-Soo Hur	Chairman <b>GS</b> Caltex Corporation
Director	Jin-Soo Huh	Vice Chairman & CEO, <b>GS</b> Caltex Coporation
	Byong-Yol Kim	President, Manufacturing, GS Caltex Coporation
	Kyung-Suk Suh	Vice Chairman & CEO, GS Holdings Coporation
Non- standing	Wan-Bae Rha	Vice Chairman & CEO, GS Energy Coporation
Director	R. C. Krogmeier	Vice President,
		Chevron International Products
	J. S. Farrand	Vice President,
		Chevron Downstream &
		Chemicals
	G. M. Hanggi	General Manager,
		Chevron Manufacturing
	W. J. Miner	Country Chairman,
		Chevron Korea
	J. J. Kuehn	General Manager,
		Chevron Supply & Trading

#### **Composition and Role of the BOD**

Member	Role	
3	Review and discussion of	
	governance-related issues	
4	Review and discussion of complian	
	program and major audit issues	
2	Review and discussion of	
	LNG business-related issues	
	3 4	

## **Sustainable Management**

#### For GS Caltex, sustainable management is a concept identical

to corporate social responsibility and a requirement to continue its business. GS Caltex runs the CSR Strategy Framework and CSR Committee to pursue sustainable management through risk management activities in the economic, social, and environment sectors.

#### **CSR Strategy Framework**

GS Caltex set up the four CSR strategies, 'Sustainable Operation', 'Reliable Energy', 'Accountable Engagement', 'Responsible Marketing', in 2010 and manages diverse issues related to the economic, social, and environment sectors. To promote the company-wide CSR activities, the company developed the ISO26000-based diagnosis index to evaluate the level of CSR activities and enact improvements. In 2012, it built and ran the 'CSR performance management system'. Under this system, the 30 CSR performance management indices are selected, measured, and improved for the CSR practices of each division.

#### **CSR Committee**

Since 2010, GS Caltex has run the CSR Committee composed of the CEO, chairman, and executives, and the committee members discuss and make decisions on the main CSR issues in the economic, social, and environment sectors. GS Caltex reinforces the CSR system by exchanging opinions with the committees related to sustainable management from a company-wide perspective. GS Caltex held a total of three CSR Committee meetings in 2013, and especially strived to improve working-level consultations between the CSR Committee and the major committees/councils related to sustainable management.

#### Main Agenda Items of the CSR Committee in 2013

Classification	First committee	Second Committee	Third committee
Main agenda	Direction of CSR strategy	Review on CSR performance index	Direction of CSR strategy improvement
	operation	Reporting the status of representative	Performance of social contribution projects in
		Social contribution projects	2013 and the projects operational plan for 2014

#### **Major Committees Related to Sustainable Management**

GS Caltex runs various committees and councils to respond to each issue related to sustainable management based on their expertise. Economic risks that directly affect corporate management are controlled by the Risk Management Committee. This committee has been active since May 2004 in order to evaluate and manage risks regarding fluctuations in foreign exchange rates and oil prices. The committee chairman is the CEO, and its members are GS Caltex executives from various departments including Finance and Supply & Trading. The committee contributes to sustainable development of the company by making important decisions on risk management. Environmental issues that had a major impact on management in 2013 together with the economic risks, are managed by the Environmental Safety Committee. The executives at all workplaces of GS Caltex and its subsidiaries participate in this committee. It conducts company-wide advanced safety management by introducing advanced safety technology and management tools, and steadily monitors matters decided by the committee members.

In addition, committee/council meetings are regularly held on various issues ranging from consumers and information security to ethical management and shared growth. The CSR committee contributes to sustainable management improvement by closely interacting with these committees and councils.

#### **Future Plan**

GS Caltex strives to fulfil corporate social responsibilities in a strategic and efficient manner by reorganizing the company to efficiently manage CSR risks. As part of this plan, GS Caltex has selected and managed 'CSR management items and potential issues' since the first half of 2014, considering global guidelines like GRI and ISO26000, the previous CSR performance index, and management conditions at home and abroad. The company will engage in strategic CSR activities from the perspective of sustainable management with the aim of detecting the changes in the domestic and overseas CSR environments and of figuring out countermeasures.

GS Caltex selected and reported the subjects in accordance with the reporting subject selection principle provided by GRI 4, the sustainability reporting guidelines. The reporting subject selection principle is composed of Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness, and the responses of GS Caltex to each item are as follows.

**Stakeholder Inclusiveness** 

GS Caltex supports the prosperity of all stakeholders including customers, investors, the society, the nation, and employees, and acts as their partner that shares their hardships and accomplishments. To this end, the company is involved in various CSR activities and communication efforts in order to listen to the opinions of stakeholders and reflect them in management decisions. The report deals with the key issues selected based on interaction with stakeholders.

#### **Classification of stakeholders**

	Communication channel	Efforts to enhance mutual value for stakeholders
Government	Public hearings, discussions, seminars     Website     Conference on economic cooperation	<b>GS</b> Caltex earings, abides by the regulations and policies of Korea and the countries into which it makes inroads it also fulfils its tax payment obligations.
Labor unions	Joint Labor-Management conference     Joint Labor-Management volunteer     activities     Joint Labor-Management campaign	<b>GS</b> Caltex set up the vision of 'achieving Labor-Management prosperity through a productive Labor-Management relationship' and runs diverse programs involving both the labor union and management to realize the vision.
NGOs	<ul> <li>Social contribution activities</li> <li>Discussion</li> <li>Website, Company Newslettter, Media Reports</li> </ul>	<b>GS</b> Caltex cooperates with NGOs in various ways including donation, voluntary service participation, and investment in infrastructure, which contribute to sustainable development and social stability.
Subsidiaries	<ul> <li>Notices including the CEO's message</li> <li>Website, Company Newsletter, Media Reports</li> </ul>	<b>GS</b> Caltex makes efforts to establish a sound order of market economy by building reasonable relations with subsidiaries through compliance with the internal regulations for transactions.
Partners	Consultative meeting with partners     Portal website for purchasing     Survey on satisfaction level	<b>GS</b> Caltex strives to have fair and transparent transactions with its partners and to enhance the value of coexistence through information sharing and technology dissemination.
Local communities	<ul> <li>Social contribution activities</li> <li>Discussion</li> <li>Website, Company Newsletter, Media Reports</li> </ul>	<b>GS</b> Caltex is involved in environment protection activities at workplaces and sharing activities in order to engage the local communities and give them hope.
Customers	•Customer satisfaction survey •Channels of gathering customers' opinions, including the customer center	<b>GS</b> Caltex is raising the trust of customers by delivering the best-quality products and services through technology advancement and transparent distribution network. The company uses various channels to gather customers' opinions in order to have better communication with them.
Shareholders and investors	Business Report	<b>GS</b> Caltex maximizes the values of shareholders and investors by realizing stable corporate governance through transparent management of BOD and continuously improving corporate competitiveness.
Employees	Company Newsletter, internal Bulletin board     Survey on employees	A company needs to respect the rights and improve the value of employees in order to raise its competitiveness. <b>GS</b> Caltex enhances the value of employees by creating a dynamic corporate culture and pursuing a fair personnel management policy.

## **Selection of the Reporting Subjects**

15

#### Completeness

mance to stakeholders.

## Key Issue Financial soundness New growth engine Increase in market share Appropriate pricing of products and services, actives for customer satisfac Reduction of energy consumption • Improvement in energy efficiency • Response to climate change • Accident prevention for each working process Oil Spill • Efforts to recruit talented employees Training for capacity building

Analysis on Changes in the Key Issues Compared to the 2012 evaluation result, efforts to recruit talented employees, financial soundness, training for capacity building and oil spills emerged as new issues in 2013. This is because of the awareness that enhancing value for employees—the source of the corporate competitiveness—is essential to the company's sustainable development. Dealing with the oil spill issue has become crucial, especially because of oil outflow accidents by domestic and foreign oil companies\*. In addition, the financial soundness issue received attention due to the prolonged economic slowdown at home and abroad in the aftermath of the global financial crisis. \*As for the oil spill accident caused by the collision with the Uisan oil tanker in January of 2014, the company is dealing with the aftermath. The actions to be taken regarding the accident will be included in the next report.

#### **Sustainability Context**

GS Caltex created a pool of sustainable issues in terms of sustainability. The pool was written based on the analysis of stakeholders' opinions, review of global standards(GRI G4, ISO 26000), examination of GS Caltex internal issues and documents, and external environment analysis(benchmarking advanced companies, media research and survey result of reputation). These activities result in a total of 38 issues related to **GS** Caltex.

#### Materiality

Materiality evaluation was conducted with two criteria: 'the impact of GS Caltex' and 'the interest of external stakeholders'. 'The impact of GS Caltex' is the evaluation result by the GS Caltex TFT from the perspective of short-term finance and mid and long-term strategy. 'The interest of external stakeholders' is the evaluation on benchmarking advanced companies, media research, and survey result of reputation. The materiality evaluation by GS Caltex sustainability management TFT was conducted through an e-mail survey. More than 70% of all employees participated in the survey, showing their high level of interest and support of sustainability management.

#### Pool of sustainability issues and Materiality evaluation result

Classification	Issue	Classification	lssue	Classification	Issue	
Customers	Appropriate pricing of products	Economy	Research & Development	Customers	Providing proper information	
	and services, activities for customer satisfaction	Employees	Improving communication with employees		regarding products and services	
Economy	Financial soundness	Employees	Health care of employees	Society	Protecting the human rights and entitlements of community	
Employees	Efforts to recruit talented				members	
Linployees	employees	Customers	Protecting customer safety and health	Economy	Promoting ethical and transparen	
Employees	Training for capacity building	Society	Expanding communication with		management	
Employees	Accident prevention for each	Jociety	stakeholders	Employees	Prohibition on discrimination, providing equal opportunities	
	working process	Society	Shared growth with partners			
Economy	New growth engine	Environment	Response to environment	Economy	Encouraging fair transactions	
Environment	Oil Spill		regulations	Environment	Wastewater and materials	
Environment	Reduction of energy use	Employees	Labor-Management relationship		management	
			management	Customers	Fair management marketing	
Emvironment	Improvement in energy efficiency	Environment	Compliance with environment regulations	Environment	Water resources management	
Economy	Increasing market share	Society	Attaining sustainability for	Employees	Fair performance evaluation and	
Environment	Response to climate change		partners		reward	
Society		Environment	Environment-friendly products	Environment	Biodiversity protection	
Society	Facilitating corporate social responsibilities and expanding investment	Employees	Spreading safety-centered corporate culture	Society	Reflecting the global human rights standard in the business	
Employees	Balance between work and life	Environment	Improvement in emissions management	Customers	Personal information protection	

The materiality evaluation led to the eleven key issues(one related to customers, three to the economy, three to employees, and four to the environment). The eleven issues are divided into nine categories according to the GRI G4 Guideline. GS Caltex categorized these issues into five themes in the 2013 Sustainability Report and simply explained the economic, environment, and social impact and perfor-

In addition to these key issues, relevant topics will be continuously monitored to prevent sustainability-related risks.

	Reporting Subject	G4 Aspect	
	Management activities for sustainable growth	Economic performance	
ction	Providing the best-quality products and services to customers	Product and service labeling	
	Environmental management and response to climate change	<ul> <li>Energy</li> <li>Emission</li> <li>Wastewater and materials Overall</li> </ul>	
ŝ	Reinforcement and dissemination of safety system	Industrial safety and health	
	Employee Value Enhancement	Recruitment     Training and education	

## **Material Aspects**

GS Caltex conducted materiality test based on analysis of stakeholder's opinions, global standard assessment(i. e GRI G4, ISO 26000), review on internal issue and data, and analysis of external environment, and as a result, it reported economic, environmental, and social effects and performances on core issues by classifying them into 5 themes.

- 1. Management Activities for Sustainable Growth
- 2. Providing the Best-quality Products and Service to Customers
- 3. Environmental Management and Response to Climate Change
- 4. Reinforcement and Dissemination of Safety System
- 5. Emplyee Value Enhancement

Providing the Be and Services for

## **Exploring and expanding new markets**

**Export Expansion through Acquiring** New Global Markets

Korea does not produce a single drop of oil, but the export amount of oil and petrochemical products is 11.2 billion dollars, accounting for 18% of Korea's entire exports. This has greatly helped the Korean economy cope with the global economic downturn.

GS Caltex exports its products to about 50 countries around the world including China, southeastern Asian countries, European countries, and South America. It also exports manufactured products using imports from oil producing countries like the UAE. This is thanks to the proactive investments in upgrading oil refining facilities and business diversification in high value-added sectors including aromatic products and lubricants. This enhanced corporate competitiveness has laid the foundation for **GS** Caltex's growth. In 2013, the company achieved a total export amount of 31.1 trillion won.

#### **Annual Export Amount**

2011	2012	2013
30.2trillion won	31.9trillion won	31.1trillion won

**Commercialization of Carbon Fiber LFT** LFT stands for Long Fiber Reinforced Thermoplastic. Carbon fiber LFT is produced by mixing of carbon fiber with various plastic resins and additives by means of **GS** Caltex's distinct LFT processing technology and resin formulation know-how. The produced carbon fiber LFT has a superior stiffness and impact resistance balance and also shows minimized post-deformation tendency in final automobile parts. This carbon fiber LFT is 50% lighter and has similar or higher mechanical strength compared to steel. GS Caltex Polymer R&D Team embarked on a long series of carbon fiber LFT-related experiments for development of weightreduction material for automobile at the end of 2012. The team has successfully launched this new material in 2014 by applying it to several vehicle models of Hyundai/Kia Motors and is still endeavoring to expand its application for global electric vehicles. The company has completed production facilities for 12 thousand ton LFT materials in Jincheon plant and Suzhou(China) plant. It plans to build additional facilities in Jinju plant by 2015, driving up the entire production capacity to 20 thousand tons.

# **Material** Aspect 1.

## **Management Activities for Sustainable Growth**

Recovery of the global economy in 2014, including delay, growth of emerging competition, won exchange rate appreciation, increase oil supply is expected to be more difficult business environment of GS Caltex. We are seeking a reliable underlying profitability through enhanced competitiveness GS Caltex to overcome this situation. Will be a distinctive competitive advantage in the new market. but GS Caltex excavation and constant innovation, R & D activities are effective.



This issue affects the impact key stakeholders

#### Highlights

Exports





HOU ratio



in the oil refining indust





The company has completed production facilities for 12 thousand ton LFT materials in the Jincheon and Jinju plants(domestic plants) and Suzhou plant in China. It plans to build additional facilities in the Jiniu plant by 2015, driving up the entire production amount to 20 thousand tons.

## **Management Innovation Activities**

#### **V-Project**

GS Caltex has made great investments in building Heavy Oil Upgrading Units to achieve profitability and competitiveness. To achieve optimum profitability through the operation of Heavy Oil Upgrading Units requires company-wide collaboration among crude oil purchasing department, sales department, and planning department as well as production/technical service department. For this collaboration, **GS** Caltex has carried out the 'V-Project', a company-wide mega project, since 2013. 'V-Project' stands for 'Vision', 'Victory', and 'Innovation throughout Value Chain'. The project involving the Manufacturing Division, Supply & Trading Division, and Corporate Planning Division came up with about forty detailed tasks for improvement in 2013 alone, and then carried out these tasks, resulting in huge profit. In 2014, 'V-Project' has been extended to 'Optimal operation of advanced facilities', 'Improving efficiency in energy/utilities', and 'Optimization of petrochemicals's.

#### **Overview of Major Improvement Tasks and Financial Results**

		Unit: I	billion won
Classification	Areas to improve	2013	2014
		Performance	(e)
Optimal operation of Heavy Oil Upgrading Units (Scope I)	<ol> <li>Strengthening competitiveness in Heavy sour crude oil processing</li> <li>Optimization of process operation</li> <li>Optimization of product import/sales</li> </ol>	64.2	136.4
Improving efficiency in energy/utilities (Scope II)	<ol> <li>Increasing the use of low- end energy sources</li> <li>Reduction of energy usage</li> <li>Optimization of hydrogen production/steam recovery</li> </ol>	-	45.5
Total		64.2	181.9

#### Six Sigma Initiatives and Knowledge-based **Management Activities**

The recent business environment requires companies to continuously change and secure consistent competitiveness. In response to this, GS Caltex introduced the Six Sigma initiatives as a company-wide innovation program in 1999, and has performed knowledge management activities for establishing its Learning Organization since 2004. In addition, **GS** Caltex has carried out about 380 Champion projects, 800 BB projects, and 4,600 GB projects until 2013, and accomplished 23 strategy CoP(Community of Practice) and 2,000 learning CoP through continuous execution and changes in management programs. Based on these performances, **GS** Caltex is moving forward in pursuit of excellent financial outcomes, talent nurturing, and work process change.

#### **Achieving Financial Soundness**

#### **Financial Strategy Execution for Stable Cash Flow**

GS Caltex carries out various efforts to achieve stable and competitive financial solidity to be prepared against high volatility and uncertainty of the market. The company completed investment in Heavy Oil Upgrading facilities in early 2013, and has been creating stable cash flow based upon the improved competitiveness. Moreover, **GS** Caltex has maintained the appropriate level of cash and debt by establishing the loan and financial management strategy based on its short and long-term business plan. The company tries to enhance its short and long-term loan repayment structure by reflecting the cash flow for business management.**GS** Caltex also continues efforts to achieve stable financing and to deal with financial risks by additionally increasing its bank credit line

#### **Investment in Facilities**

		Unit: million won
2011	2012	2013
631,137	964,108	511,089

#### **Securing New Growth Engines** through R&D

#### **R&D** Framework

GS Caltex is committed to secure global top-tier R&D technology. To this end, GS Caltex Technology R&D center carries out intensive research projects in five areas-Biochemical, High-value composite material, Catalyst technology, Applied technology, Oil refining & technical support. And we are supporting for the company to become the Energy & Chemical Corporation through developing new promising energy & chemical materials.

#### **Biochemical Areas Bio-butanol**

 $\ensuremath{\textbf{GS}}$  Caltex prepares for the rapidly changing future business environment by developing "Bio-butanol", the next-generation biofuel and biochemical material, which constitutes the three major bio energy sources along with biodiesel and bioethanol. Since 2007 when the research began, the company has secured world-class technologies in the entire process ranging from the 2G inedible ligno-cellulosic biomass(i.e. EFB, Wood, Bagasse, Corn stover etc.) pretreatment/hydrolysis process to microbial fermentation and separation/purification process. Microbes which enables the biobutanol production using ligno-cellulosic biomass, and the entire process integration and optimization that remarkably increase energy efficiency are the advantages of GS Caltex biobutanol. Moreover, GS Caltex applied for more than 40 patents while developing the biobutanol technology, and received NET(New Excellent Technology) certification from the government in 2014.

#### 2,3-BDO(2,3-Butanediol)

2,3-Butanediol(2,3-BDO), a colorless and odorless liquid of high boiling point, can be used as a reagent in a number of chemical synthesis. In addition to its applications in solvent and antifreeze preparations, it could also be applied to high value added purposes such as ingredients of cosmetics, agrichemicals thanks to their strong applicability and replace existing petrochemicalbased products. Due to the extensive industrial applications of this product and growing demand for new and eco-friendly chemicals, interest in microbial production of 2,3-BDO has been increasing recently. In response to this trend, GS Caltex is developing strain and process technologies for production of 2,3-BDO from renewable biomass through fermentation. Also, we have been building a comprehensive intellectual assets on the strain and production process of 2,3-BDO and completed verification of pilot scale production technology in 2013.

#### BD/MEK(1,3-Butadiene/Methyl Ethyl Ketone)

1,3-Butadiene(BD) is an important industrial chemical used as a monomer in the production of synthetic rubber such as tires,

engineering polymers and methyl ethyl ketone(MEK) is widely used as an industrial solvent or intermediate material of organic synthesis. Because these chemicals are almost exclusively obtained from fossil oil, the chemical industry is looking for alternative resources combined with new transformation methods to synthesize those products cost-efficiently. GS Caltex is developing process technologies for the production of BD and MEK from renewable feedstock, 2,3-BDO, through the catalyst conversion process. The 2,3-BDO would be produced by fermenting various biomass with our proprietary microorganism and process. GS Caltex applied the patent on catalyst and production process of BD and MEK, and verified technology development for pilot-scale production in 2013.

#### **High Value-added Composite Materials Carbon Fiber**

**GS** Caltex is developing technologies to produce high valueadded carbon fibers from petroleum-derived pitch, a byproduct of the refining process. Core technologies to produce activated carbon fibers have been developed for the last 3 years on a bench scale. Pilot-scale production facilities are currently under construction and are expected to run in early 2015 as a part of 'Jeonju Carbon Valley project'. Moreover, substantial research efforts are put into developing pitch-based long carbon fibers with higher price competitiveness than PAN-based carbon fibers.

#### **Bio-based Nylon**

Nylon is one of key polymers used in many applications such as clothes fabrics, parachutes, carpets, and car parts. As a very

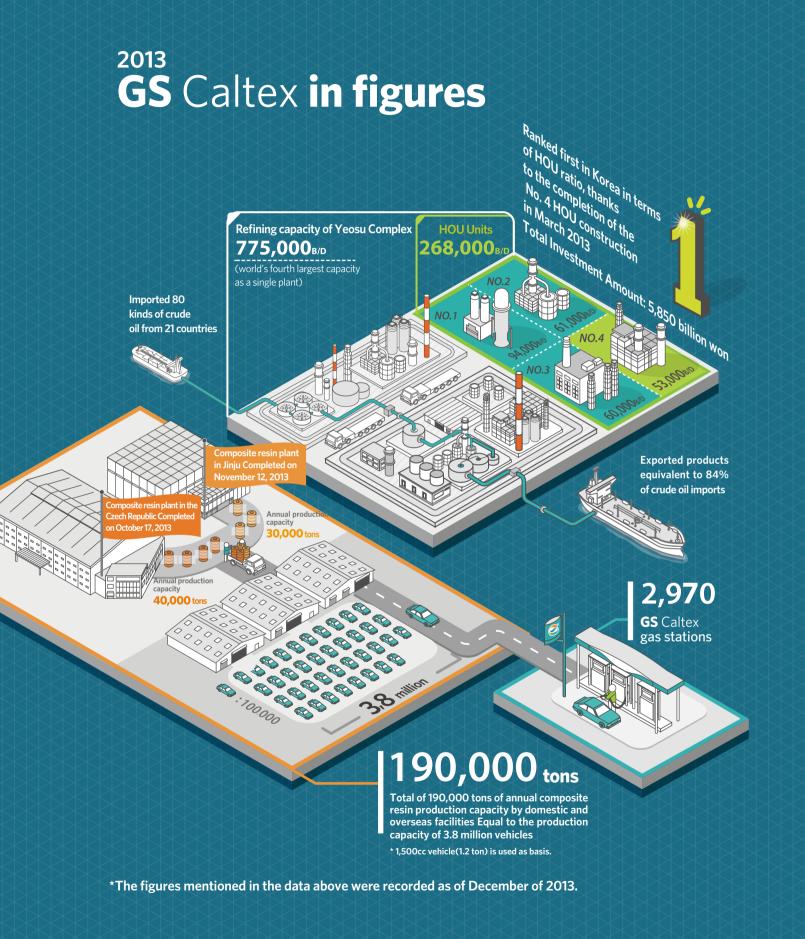


diverse polymer, nylon is a product to be substitute bio materials. To meet the demand for environmentally friendly materials, GS Caltex is developing the technologies for the production of bio-based nylon. Our bio-based nylon is produced through a polymerization process with pyrrolidone as a raw material, produced from renewable biomass. It can be used as fiber or engineering plastic. Particularly, bio-based nylon has excellent moisture absorption property, enough to be used as a cotton substitute. Its mechanical property is similar to existing materials, meaning that it can be applied to high value-added fiber, vehicles, and electric and electronic components. This technology has been selected as one of 'the 100 future technologies to lead the Korean industries by the year of 2020' and recognized as an excellent and promising technology.

#### Future Plan of R&D

**GS** Caltex is conducting a scale-up research of the biochemical field for the future commercialization. Through this research, the company will assess commercial feasibility and carry out various projects for future technology sales/licensing and plant construction. It also considers a strategic partnership to obtain a stable supplier of biomass materials in preparation for the start of the full-scale biochemical production process. In addition, GS Caltex strives to expand the market of biochemical products and high value-added composite materials and to explore their new applications. With active investments in R&D, GS Caltex will improve the profitability of existing businesses and discover new growth engines.





# 52 Material Aspect 2.

## **Providing the Best Quality Products and Services for Customers**

Oil and petrochemical products are required to be of high quality because they serve as basic fuel and materials for other industries and machinery. Service that ensures customer satisfaction is the key to having an edge over others, in the fiercely competitive market. GS Caltex carries out company-wide activities based on top-quality products and services to offer high value to customers. The company recognizes the franchise owners of gas/filling stations as 'partners' who should grow with GS Caltex in order to enhance the rights and interests of customers, and supports various activities related to their management and customer service.



improvement

## **Efforts to Enhance Customer Value**

**Process for Customer Value Enhancement GS** Caltex already declared that customer value was the main strategy for its corporate management in the early 1990s. It has performed optimal and systemic processes for customer value enhancement since 2006.

	Customer Value Enhancement						
		er-centered ma centered corpo	-				
	improvement in	the customer i	rights and inter	ests			
Strategy planning	Prevention system	Internal management system	Remedial system	Evaluation and improvement			
Planning the VOC-based strategy	Product Quality/Service management and relevant education	CCM system, CSC operation, VOC management	Standardization for customer complaint resolution process	Operation performance evaluation, VOC sharing, the whole process			

#### **CCM(Customer-Centered Management) Practice**

**GS** Caltex introduced its customer-centered management culture in 2006, and became the first oil refining company that received the certificate of an excellent CCM company in July of 2010. The Customer Centered Management(CCM) is a program

organized by the Korea Customer Agency and certified by the Fair Trade Commission, which examines all corporate management activities from the perspective of customers and makes continuous evaluation of the improvement of the activities. The customer-centered management system has the goal of building up the trust of customers through the prevention of customer complaints and the quick remedial system. It also aims at providing perfect-quality products and services to customers, enhancing corporate value, and increasing competitiveness by reflecting customer opinions(VOC) collected via various channels in continuous improvement activities.

**GS** Caltex has made the internal reporting system more prompt and efficient by integrating the Management Committee, the main decision-making group into the CCM Committee, in 2013. It became the first in the oil refining industry to receive the certificate of CCM three times in a row, and was also selected as an excellent company in performance management, thanks to its VOC management and improvement since the introduction of the CCM system in June of 2014.

#### **CSC(Customer Service Center) Operation**

GS Caltex provides services based on the optimized system to meet customer needs. The CSC(Customer Service Center) is the integrated customer service channel that runs the One-stop counseling service for inquiries regarding service and product quality and other inquiries through integrated system management in order to offer customers a higher level of satisfaction than its competitors. The customer service system continues to be improved to handle

2014 CCM Certificate Award Ceremony



Service training



#### 25



Products and Services Trusted **by Customers** 

Accomplishing the Corporate Vision through Quality Management GS Caltex applies its own quality standard, which is much stricter than the Petroleum and Alternative Fuel Business Act, to all its projects. Quality management is the basis of achieving its vision of becoming the 'Value No. 1 Energy & Chemical Partner'.

#### GS Caltex's Quality Management Policy

- GS Caltex, a leading energy service corporation, provides the products and services that meet the requirements and expectations of customers and abides by the relevant regulations by managing quality in a scientific and systematic manner.
- Moreover, we enact initiatives in becoming the 'Value No. 1 Energy & Chemical Partner' by gaining customers' trust and impressing them
- To this end, **GS** Caltex is committed to establishing its quality management system in accordance with BS EN ISO 9001 and KSA 9001/ QS9000, registerin

**Product Quality Management** GS Caltex started running 'the Kixx Quality Service Vehicles', which can identify counterfeit petroleum and any defects in quality on the spot in July of 2007, with the aim of managing quality in the distribution phase. 'The Kixx Quality Service Vehicle' visits **GS** Caltex gas stations across the country to carry out various activities, such as quality tests and facilities inspection. The employees running these vehicles also share expertise like management knowhow and collect managers' opinions. Since 2013, GS Caltex has expanded its activities and operated 'LPG Quality Service Vehicles' for GS Caltex filling stations. During the time of change in legal quality requirements, these vehicles have carried out thorough quality management to pre-

Kixx Quality Service Vehicle





Providing the Best Quality P and Services for Customers

vent LPG stations from violating regulations due to operational negligence. **GS** Caltex conducts inspections on gas/LPG stations about 7,000 times per year.

#### **Service Quality Management**

**GS** Caltex adopted a virtuous circle system of establishing service strategy, field training, evaluation, and reward, and strengthened executive abilities in the field in order to offer better services to customers. As part of this system, the company produced the six-step service manual for services with the focus on the basic factors including service quality, kindness, and cleanliness. It is distributing the manual through gas station managers, the online website, and the Digital Signage of gas stations.

#### **Operation of Star SVC Team**

The Star SVC Team of **GS** Caltex visits about 1,200 workplaces to offer the mentoring program, and it involves service manual training, listening to customers' opinions, and encouraging field staff. The team directly shares knowledge gained through various experiences and cases with staff members, instead of providing manual memorizing education. These activities make the training program more efficient and increase the actual value for customers.

#### **Service Quality Monitoring**

GS Caltex service evaluation consists of the site-visit evaluation in which monitoring staff members visit the site and make an assessment and an online evaluation in which customers evaluate the service quality on the marketing website(www.kixx.co.kr). Based on the monitoring result, the workplaces with improved service quality and the workplaces and organizations with excellent service quality are rewarded. These evaluation results are used as references for customer satisfaction activities and for follow-up education at workplaces that need to improve service and workplaces with poor service quality.

In addition, GS Caltex holds the 'Star Festival' which selects excellent gas/filling stations, a first in the industry, as a way of putting customer-centered and value-based management into practice. In the festival the company selects the gas/filling stations which show remarkable business performance through management activities for customer satisfaction as 'Star Partners'. It also shares the business knowhow of excellent workplaces with other participants to raise the overall service quality of GS Caltex.

#### Future Plan

GS Caltex is not satisfied with its current service quality and strives to identify and improve the factors that adversely affect the quality of products and services. It will strengthen the inspection of counterfeit or adulterated petroleum in order to raise customer confidence in products and to contribute to the establishment of the distribution order of petroleum products.

Material Aspect 2. Providing the Best Quality Products and Services for Customers

#### **Creating Social Value Together** with Customers

#### Supporting the Korean Society for **Rehabilitation of Persons with Disabilities through Points Donation**

GS Caltex is actively engaged in donation activities in which customers participate to spread the joy of sharing, directly. Once customers donate the points that they collect when refueling on the marketing website(www.kixx.co.kr), **GS** Caltex accumulates the points, which are the same as the points donated by customers to set up a fund. The fund raised is donated to the Korean Society for Rehabilitation of Persons with Disabilities and used as the 'DoDream' fund to encourage teenagers from families with the disabled, to pursue their dreams.

#### **Na-Num Card Donation to the Korean Red Cross**

GS Caltex launched 'GS&POINT Na-Num Card' in 2010 which allows customers to accumulate their gas mileages collected at gas stations or affiliated stores as donation fund, with the aim of creating the donation culture. 'GS&POINT Na-Num Card' is a membership point card that automatically transfers the points customers earn by refueling or repairing their cars at **GS** Caltex gas/filling stations or at Auto Oasis into the donation fund. GS Caltex accumulates the donation, which is the same as the points donated by customers, and gives the fund to the Korean Red Cross. The fund is used as living support, residential condition improvement fund, and education and cultural activities assistance for children raised by grandparents with low income.

#### Support for Blood Cancer Patients through **Cultural Sponsoring**

**GS** Caltex has participated in the seat donation program organized by the Korean Blood Cancer Association since 2006. As part of this program, the company invites blood cancer patients who cannot afford to attend cultural performances to top-class performances like Man of La Mancha and SPAMALOT in order to support their emotional healing.

#### **Pleasant Energy Marketing in Your Life**

Idea Contest, College Students as Marketers GS Caltex selected the first/second GS&POINT marketers from among college students to strengthen online and SNS communication activities with customers in 2013, and held the 2013 GS Caltex idea contest. The 60 marketers selected among college students and about 400 contest participants worked with the staff members to come up with better ways to improve the communication system and to listen to customers' voices. GS Caltex plans to interact with customers through more diverse and active ways.

#### Main ideas selected through the contest

- Pedestrian overpass and round-shaped gas station that makes the best use of road space
- Gas stations tailor-made for bikers
- Characters with the GS Caltex logo and advertisement proposals utilizing the logo

#### I am your Event, Refresh Your Life

GS Caltex offers the 'I am your Event' program to customers of GS Caltex gas stations. It organizes various cultural events including movie, performance, reading, etc. so customers can take a break from their hectic routine and feel refreshed. The 'I am your Cinema'(previously known as Cinema brunch) has especially been a popular program among customers for more than ten years. It is a unique culture marketing event that invites customers to watch movies at the GS Caltex Theater and serves them brunch.

Points donation for the Korean Society for Rehabilitation of Persons with Disabilities



#### College Students as GS&POINT Marketers



#### **GS&CONCERT 2013**

27

Providing the Best Quality and Services for Customer

GS Caltex held the 'GS&CONCERT 2013', a music concert for GS group customers with GS&POINT membership, on October 26, 2013. Customers applied for concert tickets in one of the categories from among 'Dad, You are the Best' Zone', 'Family Zone', 'Couple Zone' and 'Friend Zone', which served as an opportunity to communicate between kids in their teens and twenties and parents in their forties and fifties. At the concert, various subsidiaries and brands of **GS** group held events and gave out gifts to participants. The concert was a great success, thanks to about 20,000 GS&STREET customers and 8,600 GS&POINT participants. **GS** Caltex plans to keep holding the '**GS**&CONCERT' as a unique event for all generations.

#### **GS&POINT Received Ouality Satisfaction Awards**

GS&POINT won in the '2014 Quality Satisfaction Awards' in June of 2014. **GS**&POINT is integrating membership of the **GS** group. It allows customers to accumulate points in **GS** subsidiaries and affiliated stores and to use the collected points to enjoy various experiences in 16,000 affiliated stores including **GS** Caltex, **GS** SHOP, GS25, GS Supermarket, and GS Watsons. Under the slogan of 'Happiness of family and life', GS&POINT provides sports, travel, and culture programs that can be enjoyed by all family members.

## **Other Activities and Performances to Enhance Customer Value**

**Ranked No. 1 in NCSI for Five Consecutive Years** GS Caltex provides the best-quality products and services and at the same time offers diverse promotional and marketing activities, including the benefits of affiliated/bonus cards and cultural events, with the aim of improving customer satisfaction. As a result of these efforts, the company is recognized as 'the favorite and enjoyable gas station for customers' and ranked first in the NCSI(National Customer Satisfaction Index managed by the Korea Productivity Center) gas station service sector for five years in a row. It scored 82 points in the customer satisfaction level, a 3-point increase(3.8% up) from the previous year and the highest score among the domestic oil refiners. This demonstrates that the customers' expectations for GS Caltex are rising.

#### Grand Prize in the App of the Year Chosen by Customers

GS Caltex offers the GS&POINT mobile application to facilitate the convenient use of point services and mobile communication for customers. The **GS**&POINT application enables customers to use the accumulated points in an easy and convenient way by offering services like mobile card usage by customers, franchise store search, and participation in events. The company was hon-



ored with the Grand Prize in the membership card category of 'App of the Year Chosen by Customers' in 2013.

#### **Private Information Protection -PIMS Authentication**

GS Caltex became the first domestic oil refiner that received the PIMS(Personal Information Management System) authentication acknowledged by the Korea Communications Commission and evaluated by the Korea Internet Security Agency in 2013. Through the PIMS authentication, the 15 million GS&POINT members and the users of the GS Caltex bonus card are able to use membership services without concern about private information security. GS Caltex has strengthened the management of customer information annually, and will provide information security education to all employees and take technical measures to protect personal information.

#### **Future Plan for Customer Satisfaction**

GS Caltex will continue to reflect the opinions of customers by consolidating the company-wide framework of customercentered management and strengthening the integrated administration of customers' opinions. It will also intensify its activities to help gas/filling stations, partners which grow together with GS Caltex, satisfy customers through enhanced support of workplaces, and improve customer contact points. GS Caltex strives to pursue constant innovation in the changing environment to become a company which is always loved by customers and brings them hone

#### GS&CONCERT 2013



Quality Satisfaction Awards



Providing the Be and Services for

Environmental Management Response to Climate Change

anc

## **Efforts to Grow into an Eco-friendly** Company

#### **Strengthened Environmental Management** Activities

Since the declaration of environmental management principles that made environmental factors the top priority of our business practices in 1996, **GS** Caltex has strengthened our eco-friendly management system and put our environmental management principles into practice.

#### Environmental Management Principles

- GS Caltex considers environmental management as our core priority in fulfilling our responsibility to protect the environment as a healthy corporate citizen, which makes the prevention of environmental pollution its top priority.
- We abide by all environmental regulations in all our business practices to maintain a pleasant living environment, thus earning trust from the public.
- To meet these environmental goals, we build environmental management systems in accordance with the KSA/ISO 14001 and register these systems with international certification bodies. Moreover, we continuously check to make sure these systems are improved and that our environmental management principles are proclaimed both internally and externally.

**Activities to Cope with Climate Change** GS Caltex strictly observes emission standard regulations. The Yeosu Complex is equipped with air pollution control facilities such as electric precipitators, scrubbers, RTO\*, VRU\*, and NOx reduction units, which help us reduce emissions of dust, VOC, Sox, and NOx. In addition, every stack within our plants has Clean SYS(automated gas emissions measurement units) installed to measure pollutants including dust, SOx, NOx, and CO in an

Pollution Prevention Facilities - Monitoring Pond



# Material Aspect 3.

## **Environmental Management and Response to Climate Change**

Crude oil refinery facilities require a large amount of energy consumption and emit diverse pollutants and harmful substances. Accordingly, such facilities should be strictly managed to minimize the effect on the environment. Recently, the management of such facilities has been gradually improved. In particular, the Korean government has implemented the GHG and Energy Target Management System since 2012 as a part of the preparation for the cap-and-trade system that will be introduced in 2015. In order to observe such social requirements and alleviate risk factors for the business, GS Caltex has made various kinds of efforts including preventive management activities and eco-friendly technology development.



Key Stakeholders Affected by the Issue

#### Major Performance

Number of Clean **Gas Stations** 



Reduction rate of harmful chemicals(benzene)



automated and continuous manner. Automated measurement networks are running to allow the systematized management of the air quality in the vicinity of our plant sites.

Low NOx burners are being installed in existing plant heaters. and new processes are being implemented to reduce emissions of NOx from the initial production stage. Additional NOx reduction facilities have been deployed in boilers and incinerators since 2008. Moreover, we develop improvement plans to reduce the amount of combustion and endeavor to cut the emissions of air pollutants through the use of the cleaner LNG fuel.

Based on these activities, GS Caltex signed the second Gwangyang Bay Area Voluntary Agreement with the Ministry of Environment and Jeollanam-do, to reduce the emissions of air pollutants generated near the Yeosu National Industrial Complex and surrounding areas. We have committed ourselves to cutting air pollutant emissions by 13% from the base year of 2008 by 2016.

\* RTO : Regenerative Thermal Oxidizer

\* VRU : Vapor Recovery Unit

#### **Activities to Prevent Soil Pollution**

At the Yeosu Complex, we have been installing oil pipes on the ground since 2003, which used to be laid underground, to ensure the fundamental prevention of soil and underground water contamination. We have also prepared wells at the plant for the constant monitoring of underground water pollution.

Since 2011, we have conducted soil pollution inspections for about 550 stations directly managed by GS Caltex and cleaning work for polluted workplaces. We have made continuous efforts to prevent soil pollution by expanding Clean Stations equipped with double-walled tanks and pipes and oil leak sensors since 2013. In addition, we train sales staff and gas station partners through education programs so they can identify and respond to soil pollution.

#### Result of the activities to prevent soil pollution with gas stations

Classification	Unit	2011	2012	2013
Gas stations that have undergone the soil pollution inspection	No. of gas stations	217	565	259
No. of gas stations designated as Clean Gas Station	No. of gas stations	135	154	147

\* In 2012, the number of gas stations that underwent soil pollution inspection increased compared to the figure of normal years due to the total inspection under the voluntary agreement

## Material Aspect 3. Environmental Management and Response to **Climate ChangeServices for Customers**

#### **Activities to Prevent Water Pollution**

**GS** Caltex monitors the sources of wastewater generated from manufacturing processes and manages the discharge of wastewater on a daily basis. To increase the recycling rate of wastewater, the wastewater from distillation facilities is reused by desalters in the crude oil refining process. Additionally, carbon filters were installed to improve the capability of eliminating pollutants in water filtered in wastewater treatment facilities. Moreover, our internal operational standards for water pollutant discharge have been maintained at 80% of the statutory minimum. If discharge concentrations are higher than the legal threshold, then environmental non-conformance reports are issued to manage water pollutants to sustain our endeavors in reducing the discharge of pollutants. In order to reduce the increased pollutants generated by newly installed processes, we completed the improvement of wastewater treatment facilities including carbon filters in August 2014.

#### **Management of Hazardous Chemicals**

Our EHS Integrated Information System allows us to check the daily consumption of hazardous chemical substances and make regular evaluations of chemical consumptions on a monthly and quarterly basis. With the sincere implementation of a voluntary agreement(30/50 Program) that we signed with the Ministry of Environment in 2004, we won the Award of Environment Minister in 2010, and signed another voluntary agreement(SMART: Stewardship-based Management for Area-specific Risk reduction Target) with the Yeongsan River Basin Environmental Office in December 2012. The SMART Program aims at reducing pol-

luting emissions from benzene and 1.3 Butadiene by about 60% in 2017 compared to 2009. **GS** Caltex has reached the benzene reduction target early through the stable operation of a marine VRU, the installation of an aromatic tank VRU in Seoksan area. and stricter management of LDAR(Leak Detection and Repair). Even after this accomplishment, we have constantly endeavored to reduce the emissions to achieve our own reduction target. **GS** Caltex also signed the Agreement for Emergency Response and Joint Prevention of Chemical Accident with companies in the Yeosu Complex in 2013 to swiftly respond to leakage accidents of harmful chemicals at early stages and avoid further pollution. We organized the emergency response team and designed the joint preventive measures, and have conducted joint response training for chemical accidents.

#### **Management of Waste Disposal**

GS Caltex operates the waste disposal demand system to ensure efficiency in waste management. Through this system, we swiftly collect and dispose the waste generated during the process operation and maintenance work so that it is not left on work sites. The waste generated during the annual maintenance work is sorted, stored, and disposed properly in the early stages through the provision of storage methods, disposal guidelines, and environmental management education for partners. In addition, we work with disposal companies to reuse sludge(waste oil) from wastewater treatment facilities as fuel for kilns of cement companies, and utilize waste catalysts containing transition metals as resources by extracting metal elements with the assistance of specialized companies.

LDAR Measuremen



#### Agreement of SMART Program



## 31

Providing the

for Be

ental Manager to Climate Ch

## **GHG and Energy Management**

**GHG and Energy Management System GS** Caltex is actively responding to the GHG and Energy Target Management System and the cap-and-trade system through our preemptive activities as an eco-friendly company. We have continued to carry out activities including diversified energy innovation programs and Solomon-Study programs to reduce GHG emissions and enhance energy efficiency, and obtained ISO 50001 certification, a first in the oil refinery industry. We have also strived to achieve goals of the GHG and Energy Target Management System by assigning emission reduction goals to the workplaces through the GS-ETS, the internal cap-and-trade system. After a few years of implementing the system, we enhanced the understanding of the cap-and-trade system mechanism among our employees.



\*Energy Intensity Index(EII) Energy Intensity Index was developed by non Associates in the U.S. to compare the energy consumption efficiency in the process of oil refineries around the world. The energy efficiency of each refinery is assessed by calculating the actual energy consumption in each operating process to the unit output or expected energy consumption based on the statistics collected by Solomon Associates. The higher the energy efficiency. the lower the EII since the energy consumption to the unit output can be reduced.

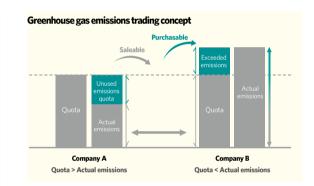
#### **GHG Management Activities Reinforcement the Internal Control Framework**

Coping with the current GHG and Energy Target Management System and the national GHG cap-and-trade system that will be introduced in 2015, GS Caltex is steadily reinforcing the MRV(Measurement, Reporting, Verification) System based on the real-time GHG/energy management system and measuring devices. Furthermore, we operate well-organized and specialized

management and response systems by organizing a task force in charge of GHG and energy within the company and dividing work processes ranging from the calculation of GHG emissions to responses to climate change policies.

#### Preparation for the Cap-and-trade System

GS Caltex is carrying out preemptive reviews in various aspects to prepare for the cap-and-trade system. Since 2013, we have focused on the analysis of foreign cap-and-trade systems, the estimation of marginal abatement cost, the prediction of emissions and reduction quota, the evaluation of the reduction potential of each workplace, and the division of roles and responsibilities of each group. In addition, we organized study groups to enhance understanding of the cap-and-trade system and the capabilities of major divisions and departments.



#### **Energy Management Systems Projects to Enhance Energy Efficiency**

**GS** Caltex conducts energy study programs with energy consulting firms as well as our internal activities to improve our processes. Based on these consultations, we reduced fuel consumption by improving the heat exchanger network through plant and equipment investment. We also identified weak points in energy consumption in our processes, including the heating furnace facilities with low efficiency. We therefore improved facility designs, and invested in plant and equipment, thereby enhancing energy efficiency.

#### **Reinforcement of the Energy Consumption Management**

**GS** Caltex runs the Energy Portal, the integrated energy management system for the Yeosu Complex, to manage the energy reduction target and result, energy consumption, and energy loss in each process on a daily basis. Moreover, we publish the Daily Energy Report that enables interactive communication between staff in charge of immediate action and feedback on energy loss. Through these activities, we divide work processes between the departments in charge of production, technology, and energy to optimize the energy consumption for each process.

Saving the

early

Securing the

emission credits

by achieving the

reduction target

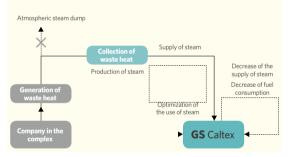
#### **Reinforcement of Daily Energy Enhancement Activities**

We have applied the energy saving system with automatic switches to less frequented facilities, such as substations, to save energy in the Yeosu Complex. We have expanded the use of high efficiency LED lighting, and avoided operating certain facilities, which can be flexibly used regardless of time, during power peak times(10:00 - 11:00 a.m., 2:00 - 5:00 p.m.) for efficient energy consumption. In addition, we run our independent power plant to substitute for electric power supplied by Korea Electric Power Corporation(KEPCO), for the purpose of actively participating in the government energy saving regulation.

#### Integration of Industrial Complex

In addition to internal innovative activities, **GS** Caltex is enhancing the efficiency and profits of oil refinery and petrochemical plants in the Yeosu Complex by integrating raw materials, byproducts, and utility into one source as part of the networking project of the complex. We try to contribute to the national economic growth by creating synergy through the exchange of byproduct hydrogen and steam within the complex.

**Concept Map of Industrial Complex Integration Project** 



#### Future GHG/Energy Management Plans

In 2014, the quota and detailed plans for the three years beginning 2015 along with the guidelines for the cap-and-trade system will be released. This is important for companies to apply for necessary emission credits. As the cap-and-trade system has a huge impact on corporate management environment, GS Caltex will establish its long-term roadmap including optimized implementation plans to minimize potential risk factors. Moreover, we will actively suggest our opinions by reviewing if the government's plans are future-oriented and if the quota is allocated in a fair manner

#### **Environmentally Friendly Products**

**Highly Efficient, High Quality Products** 

The development of high quality, eco-friendly products that deliver cleaner and high energy efficiency is central to our low carbon energy policy. To reduce sulfur content, our gasoline, kerosene, and diesel products are especially processed by highly advanced desulfurization units. We boast the highest quality in the global and domestic markets.

**GS** Caltex will continuously endeavor to develop eco-friendly products. We participate in the Auto-Oil research program conducted by the government and automobile companies to study the standard of fuel for vehicles that can reduce GHG and car exhaust emissions. We also carry out environmentally friendly technology development, including research on bio-butanol, a clean fuel for the next generation.

#### **High Quality Gasoline**

Our gasoline products, with improved engine-cleaning function compared to other gasoline products, maximize engine output, control abnormal combustion, prevent noise and knocking, and enhance fuel efficiency, thereby contributing to the reduction of CO2.

#### Ultra Low Sulfur Diesel(ULSD)

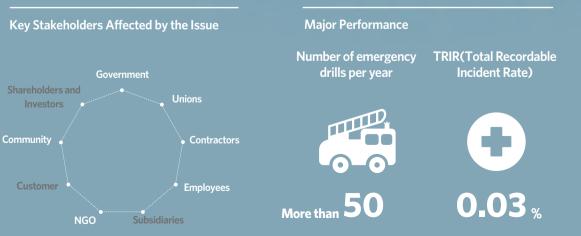
Our ULSD is an eco-friendly product that meets the needs of clean diesel vehicles. Our advanced desulfurization units produce ULSD with sulfur content of less than 10ppm. It also meets the national and global top-level regulation on acetone number, lubricity, polycyclic aromatics content and density as well as sulfur content. We also run the combined production system for biodiesel from plants to actively reduce CO<sub>2</sub> emissions.

#### Kerosene

Our kerosene products are mainly used for indoor heating and cooking devices. These products produce less harmful gases during combustion and accordingly do not cause eye or nose irritation. As the odor commonly found in oil products is reduced, our kerosene products can be stored indoors without disrupting pleasant indoor environments. They are environment friendly products with sulfur content of less than 10ppm. The Ministry of Environment gave them the 'eco-label' in recognition of their quality.

## **Reinforcement and Dissemination of Safety System**

ranging from production, storage, transport, use, and disposal. companies.



32

# **Material** Aspect 4.

The petrochemical industry produces a myriad of useful products necessary in modern society, but it may have harmful effects on human beings and the environment throughout the entire process

With the growing attention to the safety of petrochemical industry, preventive activities for potential accidents related to safety, are considered essential in strengthening the competitiveness of

#### **Dissemination of Safety Culture**

#### **Health and Safety Management**

Based on the principle of according top priority to health and safety management for employees of our company and partners since 1996, **GS** Caltex has continuously implemented preventive activities including the EHS&Q System. We will put in our utmost efforts to become an 'incident-free company' by reinforcing the Safety First Leadership and establishing truthful and autonomous safety culture.

#### Health and Safety Principles

- At GS Caltex we ensure the health and safety of all our employees and our partners. We consider it a top priority in our management activities and gravitate towards a safe, pleasant, and incident-free workplace by carrying out continuous improvements and preventive actions in everything we do.
- We comply with all of the health & safety regulations in our entire business conduct and make sure that health & safety information is honestly shared across the company.
- To this end, we guarantee that the health and safety of our workers is secured regarding: design, maintenance and operation of establishments, and the minimization of health & safety risks (through health & safety improvement programs and training). In this way, we create advanced health & safety management systems

#### **Establishment of Safety Culture through IIF(Injury Incident Free)**

Considering the increasing concerns about small and big accidents in our workplaces home and abroad, GS Caltex has introduced IIF, a new safety culture program, for the first time in the industry to actively respond to such incidents. IIF assigns duties in safety activities for workers, supervisors, and managers.

We conduct education for each position to provide related knowledge and implementation methods, and foster internal facilitators to perform a role as a catalyst and missionary in the creation of safety culture. We set a specific and achievable safety goal under the slogan 'Go home safe' and try to accomplish that goal. Furthermore, we won the 1st Korea IIF Success Award that is granted by JMJ, a global safety consulting firm, to a project or organization with the best practices and performance of IIF culture for the past year.

#### **Enhancement of Crisis Response Capability** through Emergency Drills

GS Caltex has a variety of emergency scenario responses that can occur during the process of production, transport, and storage, to respond to any accidents at an early stage. Our production and storage facilities carry out internal emergency drills over fifty times a year and joint drills with fire stations, police stations, and Korea Coast Guard more than once a year. Moreover, workplaces near residential areas provide guidance for preventive activities aimed at securing safety and 'response guidance for residents' for emergencies on a regular basis. This is done in cooperation with community service centers, 119 safety centers, and resident councils

#### **Duties of Each Position in the IIF Program**





Every raw material, intermediate product, and finished product handled in the Yeosu Complex is inflammable, thus requiring thorough preparation for unexpected accidents with fire. In order to extinguish fire and minimize personal injury and property damage, GS Caltex has a total of 188 first-line emergency agents(47 agents per each shift group) and 100 daily duty workers as second-line emergency agents. They are notified of mock emergency situations and go through quarterly fire drills, undergoing 16 fire suppression training sessions per year to respond to real emergencies.

**Safe Environment Competition** Since 1998, GS Caltex has conducted the safe environment competition, aiming to enhance the awareness of safe environment among our employees and encourage self-motivation. Since 2013, we have also selected one of our partners who has achieved the EHS Performance target and contributed to growth.

### **Preemptive Response to Safety**

**Examination of Corroded, Weak, and Old Facilities by Cutting-edge Technology** Petrochemical installations are prone to cause personal injury and environmental accidents due to fire, explosion, and leakage. GS Caltex calculates risk degrees by analyzing the corrosion mechanism of each installation, and examines the processes that are vulnerable to corrosion on a regular basis. We purchase hightech portable X-ray equipment and special ultrasonic equipment, carry out examination on them, and predict the service life of the equipment, thereby preventing any problems in work processes caused by the deterioration of installations.

## **Identifying Potential Risk through Systematic Risk Assessment**

In work processes handling petrochemical substances, the risk

**Emergency Drills** 



#### **Efficient Management of Fire Service Structure**

assessment aimed at identifying potential risk factors is the most essential activity to run incident-free workplaces. GS Caltex regularized the risk assessment for the construction of new processes, the alteration of existing installations and other major work processes, to prevent accidents caused by defects of installations or human errors. In addition, we introduced the Bow-Tie Risk Assessment Method, an advanced risk management method, for the first time in Korea. With the participation of all employees in this assessment, we won First Prize in the Good Practice of Risk Assessment Award conducted by the Ministry of Employment and Labor in 2013

\* Bow-Tie Risk Assessment Method: This method is used to select a certain risk factor and analyze the cause and effect regarding the top-risk factor for the occurrence of the event. One of its advantages is that the assessment result can be reviewed more easily than other methods.

#### In-Construction and Pre-start-up Safety Review

GS Caltex is well aware that a minor problem in the construction can cause a huge accident. Since 2007, the company has implemented the safety review process in which the review team, which consists of safety, environment and installation professionals, participates in the design of new projects and finds risk factors. After the implementation of the in-construction and prestart-up safety review, the incident rate of new projects has remarkably decreased, and our practice has served as a model for benchmarking in the industry.

Moreover, we conduct 'the noise impact assessment' with hightech 3D modeling and analysis methods to minimize the impact of noise generated by installations. We identify the pattern of noises of fluids in pipes and revolving equipment with a 3D simulation method, apply insulation with strong sound absorption function such as soundproof walls and vibrating pads, and use the pipe lagging method, thereby controlling noise in the work process.

With these efforts, GS Caltex has achieved 6 million man-hours during the construction process of VGOFCC and completed our factory construction in Jinju without any incidents.

Good Practice of Risk Assessment Award of the Ministry of Employment and Labor in 2013





## Material Aspect 4. Reinforcement and Dissemination of Safety System

#### **Construction Completion of Safety Training** Center

**GS** Caltex established the Safety Training Center in October 2013 to prevent accidents related to safety involving our employees and workers of partner companies at the Yeosu Complex. Our staff and partner workers in the complex are provided with safety education at the Safety Training Center equipped with 24 indoor and outdoor training courses, video lecture rooms, and protective equipment exhibition halls, and established on 19,000m2 of land at the No. 2 Plant. We will include the training courses at the Safety Training Center for all safety education in the future, and continuously manage our workplaces as incident-free places by putting safety rules into practice, including the use of protective equipment and compliance with the work procedures.

#### **Observance of Global Safe Environment** Standards

The safe environment assessment for workplaces identifies potential problems that might be overlooked by employees and facilitates idea creation related to new safe environments. It is also used to monitor compliance with safety regulations. We conduct the safe environment inspection led by the headquarters and the self-inspection at each workplace on a yearly basis. We have also contributed to the safe management of our partners by carrying out the internal inspection on a total of 31 items in the health and safety management system and related activities, targeting our five partners which implement the health and safety management system. We also get together to discuss plans for improvement.

#### **Future Safe Management Plans**

**GS** Caltex will create a strong safe environment culture focusing on the role of chief safety officers to take the initiative in safety leadership. We are planning to organize the safe environment committee with the participation of the management committee, in which the members decide the safe environment issues on a guarterly basis. 30% of the KPI(Key Performance Index) of the executives in charge of production and operation will be reflected in safe environment performance. We will also organize the emergency response team at the Production Department to strengthen the functions of emergency response, rescue service, and fire suppression and prevention, and will establish the safe inspection team at the headquarters to specialize the installation examination, safe environment inspection, risk assessment, and accident investigation, thereby promoting systematic safety activities.

GS Caltex Safety Training Center



In the petrochemical industry with its continuous growth and advanced technologies, one of the most important factors for competitiveness is human resources. Each employee's creativity and sense of challenge serve as a driving force to accomplish the vision of GS Caltex despite fierce competition in the industry. We provide various support for our employees to help them feel proud of the company and concentrate in their work to grow together with the company. We will become a leading company in the global energy industry through talent development programs for continuous growth opportunities, high reward for performance, constant challenges based on trust, and our organization culture pursuing the balance between work and life.

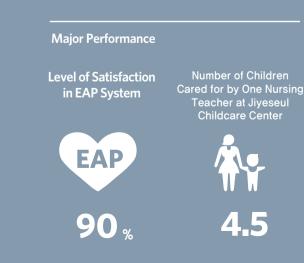
#### Key Stakeholders Affected by the Issue



Materia: Aspects Reinforcement and Dis of Safety System

# Material Aspect 5.

**Employee Value Enhancement** 



Job Competency Development

offline education based on their needs.

expertise of each field.

30

## **Annual Investment in Employee Education**

experiences to their work.

Unit: 100	Unit: 100 million won, except indirect education expe				
2011	2012	2013			
72.7	72.8	64.2			

#### Employee Education



#### **Talent Development**

#### **Direction of Development**

**GS** Caltex considers human resources as underlying assets for the achievement of the vision 'Value No. 1 Energy & Chemical Partner'. We implement diversified systems to cultivate talented employees who take the initiative and act on the corporate values and core behaviors

In particular, we set 'Developing business leaders with the leadership and expertise to take the initiative for the accomplishment of GS Caltex vision' as our mission, and focus on cultivating leadership job and foundation competencies.

#### **Talent Development Programs**

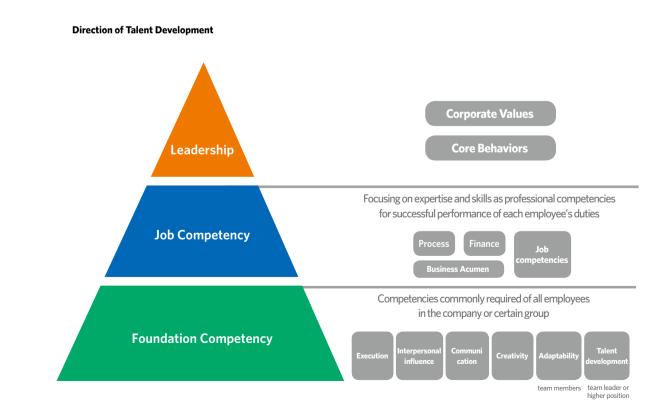
Our talent development program is systematized with leadership development programs for each stage of career, one-on-one based coaching/mentoring, development of job and foundation competencies for enhancing individual capability, and advanced education/internship opportunities for selected high potential individual.

#### Leadership Development

**GS** Caltex conducts regular education to enhance capabilities and required skills at each stage from new employees to executives. We select and develop team leader candidates through the LDC(Leadership Development Center), our internal leadership program. We also evaluate the leadership of our executives and team leaders from multiple aspects and provide them with feedback on a yearly basis.

#### **Coaching and Mentoring**

We run the coaching program with professional coaches to reinforce the leadership capacity of our executives and team leaders. We also train internally certified coaches and provide the coaching opportunities to all employees on voluntary base by internally certified coaches. We also run a mentoring program for first and second-year employees.



Value No.1 Energy & Chemical Partner

38

U

In order to reinforce job competencies of creating outcome in the business, we provide mandatory basic training programs about production process and finance to all employees, and conduct core job competency building programs to strengthen the

#### **Foundation Competency Development**

We identify foundation competencies required by all employees and provide programs to cultivate such capabilities. At the beginning of each year, we evaluate the level of competencies of each employee and provide them internal/external and online/

#### **High Potential Individual Development**

We develop talented employees to grow into future leaders. We assist these high potential individuals in taking MBA courses at top-notch national and international universities. We also provide them with internship opportunities at global companies including Chevron to help them learn advanced practices and apply their

#### **Differentiated Recruitment Process**

GS Caltex introduced the history exam in the recruitment process in 2008 for the first time as a private company to nurture talents with a right view of our country. We also hold the online recruitment fair to provide those who cannot attend the offline fairs Online recruitment fair is carried out in realtime through our website and SNS in the form of interactive communication, providing answers to questions from job seekers.

Performance of New employees on New year's Kick-off Meeting





## **Balance between Work and Life**

#### **Employee Welfare and Benefit System Health Care System**

For the enhancement of our employees' health and welfare, we support medical expenses for employees and their spouses and children(under 20). The annual health check-ups are expanded into comprehensive health checkups when employees turn 35 years old. We also run a medical office at the headquarters and a hospital in affiliation with the Yeosu Complex to prevent diseases and accidents suffered by employees. We have group personal accident insurance in response to potential diseases and incidents of employees.

#### Leisure Support System

GS Caltex provides diversified support for work and life balance. We provide vouchers for condominiums in various vacation areas in the country, and also provide free accommodation during the summer season for employees at Jeju Island, Seorak Mountain, Jeongseon, Cheonan, and Baegam.

## **Special Story**

#### EAP(Employee Assistance Program)

EAP is a grievance settlement program that provides one-to-one counselling with experts to resolve the grievances and difficulties of employees. **GS** Caltex runs the EAP system with the assistance of external companies to provide expert counselling service to help employees solve various problems in their social and personal lives.

Through this system, **GS** Caltex promotes balance between work and life and enhances productivity. More than 100 employees use this counselling service for their interpersonal relationships, child rearing, work conflicts, and financial problems. Our employees' families can use the EAP system as well.

#### Jiyeseul Childcare Center

In order to ease the employees' burden of child rearing, **GS** Caltex opened the childcare center in March 2012 near **GS** Tower in Yeoksam-dong for the children of employees of **GS** Caltex.

The childcare center in the building of two floors and one basement with 496m<sup>2</sup> of total floor area is open from 7:30 a.m. to 8:00 p.m. A total of eleven nursing teachers work for the center with the best childcare conditions as the teacher-child ratio is 1:4.5

The building of the childcare center was designed by remodeling a private house to create a comfortable atmosphere for children. We prevent potential accidents by installing safe doors at stairs and fingerprint scanners for teachers and parents, and the center is also equipped with toilets for children with disabilities.

# Job-related affairs Personal affairs Financial problems Stress from work Intense development Conflicts at work Interpersonal growth Interpersonal relationships

Satisfaction rate of users: 90%

**Counselling Service Status** 



GS Caltex has made efforts to share difficulties of the underprivileged by conducting CSR activities, reflecting the needs of local communities and businesses. These activities include Mom Talk Talk, one of our major CSR activities. Moreover, we have strengthened the consistency and sincerity of our activities through active participation of our employees through voluntary donation and regular volunteer activities.

Number of children healed through Mom Talk Talk program



Value No.1 Energy & Chemical Partner



#### Mom Talk Talk for Children

With the belief that children are the future of our society, we launched Mom Talk Talk, one of our major CSR activities, in March 2013 to encourage underprivileged children to dream of a hopeful future by reducing their psychological distress. As part of the Mom Talk Talk activities, we have conducted psychotherapy programs for children at 13 local centers around the country, and provided the intensive healing camp at Yeulmaru, a culture and art park in Yeosu, for a total of 2,148 children this year. Through the Mom Talk Talk activities, we have tried to resolve children's problems in their relationships with friends at school by carrying out group art therapy programs. To this end, we have invited topclass experts and professors in the field of art, play, and dance for the integration of therapy methods, and directly run therapist training programs. We enhanced the level of art therapy programs by providing our art therapists, who were selected through strict evaluation, with training programs on a weekly basis. We have been praised for establishing a nationwide children psychotherapy process on a stable groundwork in the first year, thanks to the efforts made by Good Neighbors, a nonprofit organization, as our partner. According to the survey of the children who experienced the Mom Talk Talk programs, their self-esteem and interpersonal relationships have improved. They also feel less depressed and their attitude has become less aggressive. Based on the framework established in the first year, Mom Talk Talk will continuously contribute to the gualitative improvement of children psychotherapy.

#### Yeulmaru

Yeulmaru is a culture and art park in Yeosu, which was constructed by receiving an investment of 110 billion won made by **GS** Caltex since 2007, serving as a venue for sharing culture and for relaxation for local residents. Yeulmaru, which indicates 'A space full of rolling waves of culture and art and where people can relax as if they are lying down on a floor of a traditional house', is equipped with high quality sound and lighting facili-

#### Social Responsibility Hierarchy

**Beautiful World through Energy Sharing** Mom Talk Talk laior activiti Training therapists of Mom Talk Talk Supporting Mom Talk Talk centers
 Conducting Yeulmaru Camp programs Local proi Child education Establishment and operation of Environment conservation activities Basic activities Global energy sharing Scholarship and education projects Yeulmaru Social welfare support Mom Talk Talk donation Self-Designated donation Individual volunteers Special volunteer activities

ties. The Grand Theater accommodates 1.021 attendees, and the Small Theater accommodates an audience of 302. The park is also equipped with exhibition halls for various purposes. Yeulmaru enhanced the level of culture and art of Yeosu, which used to have no cultural area, and satisfies the local residents' need for cultural spaces.

#### **Social Welfare Support**

GS Caltex has run the 'GS Caltex Love Sharing Center' that offers free meals to the elderly in Yeondeung-dong, Yeosu with the assistance of Yeosu Seniors Welfare Center since 2008. From Mondays to Fridays, the center provides free lunches to approximately 350 elderly people per day. Around 400 people from the GS Caltex Employees' Wives Club, the GS Caltex Retired Employees Club and 17 local women's voluntary service groups participate in this service, taking turns. As of 2013, a total of 441,454 free lunches were served, and 22,167 volunteers participated in the service.

Furthermore, GS Caltex supports local welfare centers and conducts the Sharing of Love on Korean Thanksgiving Day and the House Repairing Service for the elderly who live alone.

In order to support underprivileged neighborhoods on islands and in isolated areas, which are lagging behind relatively in terms of development compared to urban areas, **GS** Caltex has run the Summer Camp in Villages on Island to attract more tourists since 2005. As of 2013, a total of 6,850 people visited the islands through the summer camp. We also conduct the abalone spat discharge event for the conservation of marine resources and income growth of fishing villages, support events on the islands, and provide free travel packages for the elderly on the island.

#### **Scholarship and Educational Programs**

Since 1996, GS Caltex has awarded GS Caltex Scholarship to students of middle and high schools and colleges in Yeosu in order to develop local human resources. In 2013, we gave scholarships to a total of 325 students in Yeosu. Until 2013, a total of 7,283 43

students have received 5.45 billion won in scholarships. We have also been running the English Class Program by native speakers for students of schools on islands since March 2007 to contribute to relieve the education. Native English-speaking teachers hold classes once a week for about 190 students at 13 elementary, middle, and high schools on islands in the Yeosu area. In addition to these programs, we have taken the initiative in supporting local schools by providing expenses for dinner and school uniforms for middle schools in areas with a large population of lowclass households, aided by social welfare fund of the GS Caltex labor union since 2006. The company also makes a matching contribution to the amount collected by the labor union for the fund.

**GS** Caltex **Voluntary Service Corps** GS Caltex conducts volunteer activities with GS Caltex Voluntary Service Corps in Yeosu, in which our major workplaces are located, to share love and support with neighbors as a member of the local community. We have a total of 38 voluntary service teams in the Yeosu Complex, carrying out a wide variety of social service activities including talent-donating activities such as electric and boiler works and photo shooting, delivery of side dishes for senior citizens living alone, volunteering at free meal centers for the elderly, and disability experience activities. Around the company's foundation day in every May since 2005, we have conducted volunteer activities including going on picnics with children with disabilities. At the end of each year, we hold the nationwide wish-fulfillment relay event, a customized volunteer activity to grant wishes for underprivileged neighbors, such as providing food or anything they want or helping them go to places which they want to visit.

#### **GS** Caltex Green Art Contest & Green Writing Contest

GS Caltex has been holding the Green Art Contest in Seoul and the Green Writing Contest in Yeosu every year under the themes of children and environment. At the Green Art Contest held in the Olympic Park in May 2013, we arranged the green energy experience hall where visitors can experience eco-friendly energy, and installed photo zones and wish murals utilizing recycling waste. The Green Writing Contest held in Yeosu Yeulmaru in October 2013 featured various cultural and art experience events includ-

#### Completion of Solar Energy Center in Cambodia





Mom Talk Talk Camp

ing the photo exhibition and the poetry and painting exhibition by utilizing the spatial characteristics of the venue.

#### **Construction of Solar Energy Center** in Cambodia Miracle Achieved by Cooperation of Company, NGO and Government

As 80% of the population in Cambodia cannot be provided with central electricity, nine-tenths of the population spends nights in darkness, relying on tiny kerosene lamps or car batteries. To resolve this problem, GS Caltex has been implementing an appropriate technology-based energy support project for lowincome households in Battambang since 2011 in cooperation with KOICA(Korea International Cooperation Agency) and Good Neighbors.

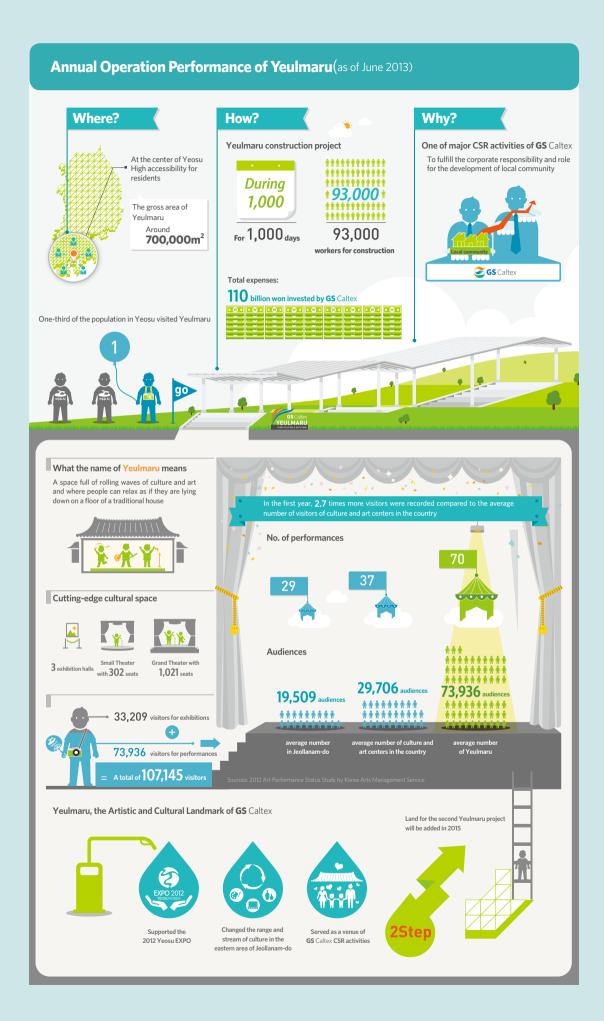
We organized a volunteer team consisting of our employees in 2012 to conduct volunteer activities in Cambodia. We distributed solar power lanterns to low-income households in Battambang with the participation of the company's researchers, and completed the construction of the Solar Energy Center in August 2013. The center plays multiple roles by creating jobs in the local community, nurturing solar energy experts, and enhancing the awareness of solar energy through education for local residents along with production and sales station.

#### Future CSR Activity Plans

GS Caltex focuses on sustainable CSR activities to contribute to actual changes in society. Based on a stable implementation in the first year, we will continuously expand the foundation of Mom Talk Talk program, one of our major CSR activities, by carrying out art therapy program contests and recruiting participating schools, institutes, as well as the second group of therapists. Moreover, we will conduct regular education for therapists and establish processes used in psychotherapy for children to improve the effectiveness of therapy programs. We will also support sustainable development of society as a global energy company through solar energy development projects in Cambodia, as well as expand our CSR activities by reflecting the needs of local residents in Yeosu, including Love Sharing Center and the English Class Program by native speakers for students on the islands, and Yeulmaru.

GS Caltex Love Sharing Center





## Appendix

- Financial Data
- Sustainable Management Performance Data
- UN GLOBAL COMPACT
- GRI G4 INDEX

## **Financial Data**

Category	2013	2012
Assets		
Current Assets		
Cash and cash equivalents	600,721	663,278
Accounts and notes receivable	3,266,605	3,585,634
Short-term financial assets	1,130,636	825,169
Inventories	5,210,040	5,061,025
Prepaid income taxes	364	22
Other current assets	594,085	706,087
Total current assets	10,802,451	10,841,215
Non-current assets		
Long-term financial assets	399,028	491,986
Investments in associates and joint venture	282,860	300,965
Property, plant, and equipment	10,655,481	10,775,339
Investment property	44,969	35,658
Intangible assets	64,392	63,856
Deferred income tax assets	2,375	1,402
Other non-current assets	33,740	33,708
Total non-current assets	11,482,845	11,702,914
Total assets	22,285,296	22,544,129
Liabilities		
Current liabilities		
Accounts payable-trade	3,346,710	2,993,137
Short-term financial liabilities	3,763,590	4,102,177
Income taxes payable	69,019	98,632
Other current liabilities	145,096	162,435
Total current liabilities	7,324,415	7,356,381
Non-current liabilities		
Long-term financial liabilities	5,541,949	5,581,027
Employee benefits	32,057	71,897
Deferred income tax liabilities	279,823	294,088
Other non-current liabilities	97,386	112,758
Total non-current liabilities	5,951,215	6,059,770
Total liabilities	13,275,630	13,416,151
Equity		
Common stock	260,000	260,000
Capital surplus	66,270	66,270
Capital adjustments	-58,926	-58,639
Accumulated other comprehensive income	14,193	15,581
Retained earnings	8,728,129	8,844,737
Equity attributable to owners of the parent	9,009,666	9,127,949
Non-controlling interests		29
Total equity	9,009,666	9,127,978
	22.205.207	22 5 4 4 4 2 2

22,285,296

22,544,129

consolidated Statements of	Profit or Loss	Unit: million won
Category	2013	2012
Sales	45,659,771	47,872,746
Cost of sales	-43,919,469	-46,468,646
Selling, general and administrative expenses	-840,222	-893,174
Operating profit	900,080	510,926
Share of profit(loss) of equity method accounted investees	-7,677	-1,953
Finance income	1,197,077	1,358,141
Finance costs	-1,455,374	-1,448,970
Other income	264,890	233,044
Other expenses	-371,701	-304,199
Profit before income taxes	527,295	346,989
Income tax expense	-153,628	-7,318
Profit from continuing operations	373,667	339,671
Profit from discontinued operations, net of tax	-	391,753
Profit for the year	373,667	731,424
Profit(loss) attributable to:		
Owners of the parent	373,667	734,090
Non-controlling interests	-	-2,666

Category	2013	2012
Profit for the year	373,667	731,424
Other comprehensive income(loss), net of tax:		
Items that will not be reclassified to profit or loss		
Defined benefit plan actuarial gains(losses)	3,168	-16,678
Changes in equity method accounted investee's retained earnings	557	-1,559
Total	3,725	-18,237
Items that will be reclassified subsequently to profit or loss		
Net change in unrealized fair value of available-for- sale financial assets	7,388	1,173
Changes in equity method accounted investee's capital	127	-2,847
Effective portion of changes in unrealized fair value of cash flow hedges	-6,637	2,248
Foreign currency translation differences	-2,266	-13,731
Total	-1,388	-13,157
Total comprehensive income for the year	376,004	700,030
Attributable to:		
Owners of the parent	376,004	702,696
Non-controlling interests	-	-2,666

APPENDIX

## Sustainable Management Performance Data

47

	Categ	ory	Unit	2011	2012	2013
R&D	R&D expenses		100 million won	470.3	434.2	458.7
Quality	Quality check of gas stations		Case	6,413	6,639	6,523
	Quality check of LPG stations			-	-	655
customer	PIMS(Korea Communications Commission, Security Agency)	Corea Internet &	_	-	-	Certification
satisfaction	CCM(Korea Fair Trade Commission, Korea Consumer Agency)			-	Recertification	
	Time required to handle customer complaints		Day	2.6	2.4	1.8
	KSQI(Korea Management Ass	ociation)	Ton	Best Call Center	Best Call Center	Best Call Cente
Environment	Air pollutants	Dust		203	179	202.6
		Nox		3,937	3,410	4,279.
		SOx		9,390	7,113	7,644.8
		СО		581	457	428.
		VOC <sup>1</sup>		189	189	17:
	Water pollutants	BOD		65.7	66.19	169.2
		COD		118.31	118.37	157.1
		SS		79.43	80.83	103.2
		N-H		3.26	3.63	5.6
		Phenol		0.08	0.07	0.5
	Amount of waste	Specified waste		22,370	16,927	20,54
		General waste		14,130	15,727	19,04
		Recyclable		20,176	18,072	23,74
	Harmful chemical	NaOH		4,880	4,939	6,77
	substance consumption <sup>2</sup>	H2SO4		494	460	56
		HCI		1,688	1,741	1,734
		NH3		40	32	32
		PCE		59	61	5
	Environmental	Wastewater and marine pollution	100 million won	71	150	61.
	investment expenses <sup>3</sup>	Air pollution		219	300	184.
		VOC		-	55	3.
		Soil pollution		6	6	17.
		Others		3	80	18.4

- Until 2012, the figure of VOC emissions was recorded except emissions from ocean shipment(the data of 2012 was calculated with the exception of emissions from the ocean shipment in the chemical substance emission data released in 2011). Since the chemical substance emission data is currently released, the VOC emission data of 2011 and 2012 were revised in this 2013 report.
- As the materials about harmful chemical substance consumption in 2011 and 2012 have errors, the figure above was revised based on the annual report.

Total liabilities and equity

<sup>3</sup> The details of the environmental investment expenses are presented below. Wastewater and marine pollution: Introduction of the advanced treatment system at the No. 2 wastewater treatment facilities in the No. 1 Plant Air pollution: Replacement of catalysts to improve air quality VOC: Installation of VRU for the storage tank of aromatic products and the improvement of VRU facilities of the ocean shipment team Soil pollution: Quality examination of pipes in areas surrounding the factories Others: Improvement in facilities handling toxic substances in the RFCC process

## Sustainable Management Performance Data

	Category		Unit	2011	2012	2013
Invironment	GHG emissions	Direct emissions(stationary combustion, mobile combustion, process emissions)	tCO <sub>2</sub> eq	6,302,721	6,283,089	6,824,874
		Indirect emissions(purchased	_	1,298,151	1,348,271	1,601,917
		steam and electricity)				
	Energy consumption	Direct energy consumption		89,496	87,458	91,937
		(every energy resources except purchased electricity and steam)				
		Indirect energy consumption (purchased electricity and steam)	-	11,158	11,596	13,415
Society	TRIR <sup>1)</sup>		%	0.06	0.05	0.03
	No. of trainees of ethical	Online	No. of people		3,011	3,026
	management education	Offnline	-	-	261	159
No. of trainees of ethical management education f partners Education hours per empl		Online	-	-	16	-
		Offnline	=	-	154	44
	Education hours per employee		Hour	102	129	97.2
	No. of employees as beneficiaries of retirement	DB	No. of people	3,233	3,249	3,137
	pension	DC	-	55	101	159
	No. of employees by each	Executives	_	55	52	55
	type of employment <sup>2)</sup>	General employees		1,710	1,596	1,534
		Production workers and technicians		1,274	1,330	1,357
		Support employees		50	53	53
		Contract and dispatched workers		264	229	185
		Others		48	54	41
	No. of employees by area	Seoul and other areas		1,782	1,616	1,500
		Yeosu		1,619	1,698	1,725
	No. of retired employees			184	297	226
	Rate of retirement		%	5.13	8.22	7.00
	Investment expenses for CSR activities		million won	565	490	245

<sup>10</sup> Total Recordable Incident Rate: The rate of every incident that is equivalent to or more serious than incidents requiring first-aid

<sup>2)</sup> The number of employees as of December 31, 2013

#### APPENDIX

49

## **UN GLOBAL COMPACT**

Since joining the UN Global Compact in December of 2010, **GS** Caltex has been a strong supporter of its principles in the areas of human rights, labor, environment, and anti-corruption, fulfilling its duty to come up with the COP(Communication on Progress) report each year. GS Caltex will continue to increase its efforts to implement and comply with the principles of the UNGC.

## UN Global Compact Sec

Sector	Principles	Related activities	Outcomes from activities (pages in the report)
Human rights	1. Businesses should support and respect the protection of internationally proclaimed human rights.	<ul> <li>Providing education on in-house sexual harassment prevention and human rights protection</li> </ul>	10, 39, 40
	2. Businesses should make sure they are not complicit in human rights abuses.	Running welfare system for employees' work and life balance	
Labor	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective	Operating labor union and guaranteeing freedom of engaging in the union	39, 50
	bargaining.	<ul> <li>Discussing issues related to human rights through the CSR Committee</li> </ul>	
	<ol> <li>Businesses should uphold the elimination of all forms of forced and compulsory labour.</li> </ol>	Abiding to the regulations of the International     Labor Organization and the UNGC principles	
	5. Businesses should uphold the effective abolition of child labour.	* <b>GS</b> Caltex strictly prohibits every kind of forced labor and child labor in all workplace	
	<ol> <li>Businesses should uphold the elimination of discrimination in respect of employment and occupation.</li> </ol>	<ul> <li>Prohibiting discrimination by gender regarding wages</li> <li>Offering equal opportunity of employment</li> </ul>	
Environment	<ol> <li>Businesses should support a precautionary approach to environmental challenges.</li> </ol>	Establishing Environmental Management Principles     Obtaining Certificate of the Energy Management System	20, 21, 28, 29,
	8. Businesses should undertake initiatives to promote greater environmental responsibility.	(ISO50001)	30, 31, 32
		<ul> <li>Adopting the internal cap-and-trade system(GS-ETS)</li> <li>Signing the Voluntary Agreement of Hazardous Chemicals management with local government and companies in the Yeosu Complex</li> </ul>	
	<ol> <li>Businesses should encourage the development and diffusion of environmentally friendly technologies.</li> </ol>	Developing High Quality Products     Conducting R&D of Biochemical	
Anti- corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery	Signing of all employees for the pledge of voluntary compliance	10
		<ul> <li>Expanding Voluntary Compliance System and Strengthening the role of Compliance Officer</li> </ul>	
		Run training programs on compliance	

## **GRI G4 INDEX**

#### **General Standard Disclosures**

 $\bullet$  : Full ,  ${\rm I\!O}$  : Half,  ${\rm O}$  : Not, N/A : Not Applicable

Indicator	Subject	Page	Reporting Level	Reporting Level
Strategy and Analysis				
G4-1	A statement from the most senior decision-maker of the organization	4~5	•	
Organizational Profile				
G4-3	Name of the organization	6	•	
G4-4	Primary brands, products, and services	6	•	
G4-5	Location of the organization's headquarters	6	•	
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	6	•	
G4-7	Nature of ownership and legal form	6	•	
G4-8	Markets served	6, 7	•	
G4-9	Scale of the organization	6, 22	•	
G4-10	Total number of employees	48	•	
G4-11	Percentage of total employees covered by collective bargaining agreements		•	75.65% (The number of members of the labor union 1,299) Total number of candidates (717)
G4-12	Describe the organization's supply chain	6~7	•	
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain		•	There is no Significant changes
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	12	•	
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the	49	•	
G4-16	organization subscribes or which it endorses Memberships of associations(such as industry associations) and national or international advocacy organizations in	49	•	
Identified Material Aspects	which the organization and Boundaries			
G4-17	Entities included in the organization's consolidated financial statements or equivalent documents	6	•	
G4-18	Process for defining the report content and the Aspect Boundaries	13-15		
G4-19	Material aspects identified in the process for defining report content	14		
G4-20	Report the Aspect Boundary within the organization	18, 23, 28, 33, 37		
G4-21	Report the Aspect Boundary outside the organization	18, 23, 28, 33, 37		
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	47		
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries Stakeholder Engagement	2		
Stakeholder Engagement		£		
G4-24	List of stakeholder groups engaged by the organization G4-25 Core Basis for identification and selection of stakeholders	13	•	
G4-24 G4-25	with whom to engage Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an	13		
G4-25	indication of whether any of the engagement was undertaken specifically as part of the report preparation process	13		
	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has	13		
G4-27	responded to those key topics and concerns, including through its reporting		•	
Report Profile	Descrition united for information arounded	2		
G4-28	Reporting period for information provided.	2		
G4-29	Date of most recent previous report	2		Reported annually since 2006
G4-30	Reporting cycle	2	•	
G4-31	Contact point for questions regarding the report or its contents	2	•	
G4-32	The 'in accordance' option the organization has chosen.	2		
G4-33	Organization's policy and current practice with regard to seeking external assurance for the report	2	•	
Governance				
G4-34	The governance structure of the organization, including committees of the highest governance body.	11	•	
Ethics and Integrity				
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	10	•	

### 51

#### Specific standard disclosures

#### ECONOMIC

Indicator	Subject	Page	Reporting Level	Omissions	Note
Economic Performance					
	Generic DMA	18	٠		
EC1	Direct economic value generated and distributed	22,46.48	•		
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	31	•		
EC3	Coverage of the organization's defined benefit plan obligations	48			
EC4	Financial assistance received from government		•		There is no assistance receive

#### ENVIRONMENTAL

Indicator	Subject	Page	Reporting Level	Omissions	Note
Energy					
	Generic DMA & Aspect-specific DMA	28	•		
EN3	Energy consumption within the organization	48	•		
EN6	Reduction of energy consumption	31~32	•		
EN7	Reductions in energy requirements of products and services	32			
Emissions					
	Generic DMA & Aspect-specific DMA	28	•		
EN15	Direct greenhouse gas(ghg) emissions(scope 1)	48	•		
EN16	Energy indirect greenhouse gas(ghg) emissions(scope 2)	48	•		
EN19	Reduction of greenhouse gas(ghg) emissions	31~32	•		
EN21	$NO_X$ , $SO_X$ , and other significant air emissions	47	•		
Effluents and Waste					
	Generic DMA	28	•		
EN22	Total water discharge by quality and destination	47	•		
EN23	Total weight of waste by type and disposal method	47	•		
EN24	Total number and volume of significant spills	30			
Overall					
	Generic DMA	28	•		
EN31	Total environmental protection expenditures and investments by type	47	•		

#### LABOR PRACTICES AND DECENT WORK

Indicator	Subject	Page	Reporting Level	Omissions	Note
mployment					
	Generic DMA & Aspect-specific DMA	37	•		
A1	Total number and rates of new employee hires and employee turnover by age group, gender and region	48	•		
A2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	39~40	•		
Occupational Health and Safety					
	Generic DMA & Aspect-specific DMA	33,40	•		
.A5	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		•		100%
A6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	35,48	0		
.A7	Workers with high incidence or high risk of diseases related to their occupation	34~36	0		
Fraining and Education					
	Generic DMA	37	•		
A9	Average hours of training per year per employee by gender, and by employee category	48	•		
A10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	38~39	•		

#### PRODUCT RESPONSIBILITY

Indicator	Subject	Page	Reporting Level	Omissions	Note
Product and Service Labeling					
	Generic DMA & Aspect-specific DMA	23~25	•		
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes		•		There is no violations
PR5	Results of surveys measuring customer satisfaction	47	•		

#### ullet : Full , $\mathbb{O}$ : Half, $\bigcirc$ : Not, N/A : Not Applicable