

GS Caltex

2020 Sustainability Report



[Overview](#)[2020 Core Issue](#)[Sustainability Achievements](#)[Key Data & Performance](#)[Appendix](#)

Contents



Overview

[CEO Message](#)[Company at a Glance](#)[Business Value Chain](#)

2020 Core Issue

[ESG Management System](#)[ISSUE 1 Road to Future](#)[ISSUE 2 Eco-friendly Management](#)[ISSUE 3 Safety and Health Management](#)[FOCUS Response to COVID-19](#)[UN SDGs Related Activities](#)

Sustainability Achievements

[Ethical Management](#)[Supply Chain Management](#)[Customer Satisfaction Management](#)[Human Rights Management](#)[Corporate Governance](#)[Information Security](#)[Risk Management](#)[Social Contribution](#)

Key Data & Performance

[Financial Data](#)[ESG Data & Performance](#)

Appendix

[Materiality Assessment](#)[Global Standards & Initiatives](#)[Key ESG Policies](#)[Third Party Assurance Statement](#)[GHG Assurance Statement](#)[External Sustainability Activities](#)

INTERACTIVE User Guide

This interactive PDF contains links to relevant websites, videos, etc. to enhance your convenience and understanding.

- Jump to the cover
- Print the current page
- Jump to the table of contents
- Go back
- Go to the previous page
- Go to the next page
- Click to see details
- Open link to website
- Click to watch video
- Click to see data

Overview

CEO Message

Company at a Glance

Business Value Chain

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix



GS Caltex creates new value through ESG management and strives for change and expansion as an energy company by continually embracing challenges.

CEO MESSAGE

Dear Esteemed Stakeholders,

The past year, marked by the COVID-19 pandemic, was a difficult one for our company and the industry at large. I would like to express my sincere thanks to our employees who dedicated their best efforts to overcoming the unprecedented crisis and to our shareholders, customers, partners, community, and all other stakeholders who trusted and supported **GS Caltex**.

Changes in the business environment that confront us today differ fundamentally from those we had previously encountered. While demand for climate change actions, eco-friendly practices, and sustainable progress grows stronger in the international community, ESG(*environmental, social, governance*) is proving to have distinct value for companies and becoming entrenched as a major pillar of corporate competitiveness.

GS Caltex has been strengthening ESG practices that affect our various stakeholders for some years. We are actively carrying out activities to achieve ESG outcomes that meet global standards with regards to respect for human rights, supply chain management, compliance reinforcement, contributions to the community, and especially climate change measures.

At the same time, we are making improvements to our management system in pursuit of sustainability. In 2021, we restructured and expanded the CSR Committee that we have been operating since 2010 into the ESG Committee. Whereas the previous CSR Committee made decisions about the company's key CSR strategies and input of resources, the new ESG Committee enables us to delve deeper into ESG issues and apply them to our management practices.

In particular, **GS Caltex** strives to uncover eco-friendly business values as an energy company, including the pursuit of new eco-friendly businesses and GHG reduction activities in response to the global issue of climate change as well as shifts in the energy industry.

In 2021, the **GS Group** worked with affiliates to establish the Sustainable Management Policy based on a strong commitment to ESG management. Accordingly, **GS Caltex** will align our practices with the group-wide policy to improve ESG results and securing sustainable growth engines.

In addition, **GS Caltex** published the Business Conduct and Ethics Code this year by revising and updating the 1997 Code of Ethics to integrate the numerous existing regulations and policies into a single Code which reflects global trends such as ESG. By enhancing ESG performance through such efforts, we will do our best to earn respect for both our processes as well as our results. In doing so, we seek to realize our vision of becoming the 'Value No.1 Energy & Chemical Partner.'

This is our sixteenth Sustainability Report, detailing a clear and transparent account of our performance in 2020. The report will hopefully give you an in-depth understanding of our sustainable management efforts and promote further dialogue.

GS Caltex will not stop challenging itself to evolve, expand, and grow into a world-class company amidst rapid changes in the energy industry. We are determined to create economic and social value and achieve sustainable progress. We ask for your warm support and interest as our journey continues.

Thank you.

President & CEO **Saehong Hur**



Overview

CEO Message

Company at a Glance

Business Value Chain

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix



Value No.1

GS Caltex, headed for Value No.1

GS Caltex was established in 1967 as the first private oil refining company in Korea. Over the past half-century, we continuously grow by diversifying our business portfolio based on our differentiated technology and quality in the nation's key industries in a refinery, lubricants, and petrochemicals, and by making bold and far-sighted investments and technological innovation. As we advance, we will stand out as the most respected energy and chemical company in society based on our best competitiveness in the industry.

Watch video about GS Caltex



VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

Overview

CEO Message

Company at a Glance

Business Value Chain

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

EnergyPlus

We will move toward a better future by preparing for changes and challenging ourselves.

Global environmental problems, such as climate change, and technological advances, rapidly change our future environment. In line with the trend of changes, **GS Caltex** is preparing to be an energy company that can deliver new value and convenient energy for life.

GS Caltex will continue to expand eco-friendly activities for environments that everyone must protect. Further, we will continue to challenge new businesses and services, such as future-oriented gas stations, according to changes in the future mobility environment and digital transformation by utilizing the latest technologies.

VALUE NO.1

Energy & Chemical Partner

GS Caltex 2020 Sustainability Report



BUSINESS VALUE CHAIN

Overview

CEO Message

Company at a Glance

Business Value Chain

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix



Crude Oil Imports

1 We import approximately 80 types of crude oil from some 30 countries around the world through diversified purchasing channels. (Total of 259.53 million barrels)

R&D

+ We are developing core technologies beyond petroleum and petrochemicals. That includes securing catalysts, polymerization and polymer processing technologies, and polymers as part of the new olefin business as well as investing in eco-friendly bio research.

Production

2 Petroleum
We produce high-quality petroleum through our crude oil refinery facility with a capacity of 800,000 barrels per day (bpd) as well as our heavy oil upgrading (HOU) facility with a capacity of 275,000 bpd.

5 Polymer
With a stable portfolio that ranges from the feedstock propylene to the intermediary polypropylene (PP) to the final PP compound, we provide products recognized for their unrivalled technology and quality.

3 Aromatics
At our facility which has an annual production capacity of 2.8 million tons, we produce aromatics (paraxylene, benzene, toluene, xylene). Aromatics are used as core materials in automobile, electronics, construction, clothing, and many other industries.

6 Base Oil
Our facility has a capacity of 26,000 bpd and thanks to our cutting-edge hydrocracking process, we are able to produce eco-friendly base oil.

4 Olefin
We entered the olefin market to strengthen existing businesses and explore new growth engines. Our goals are to begin operations at the MFC which was completed earlier in 2021 and to produce 750,000 tons of ethylene and 500,000 tons of polyethylene annually.

7 Lubricants
Using high-quality base oil sourced internally and applying our innovative technologies, we produce approximately 180 types of automobile and industrial lubricants. Finished products are sold under the Kixx brand to some 60 countries around the world.

Sales

8 We serve as a stable source of petroleum products through our 2,354 gas stations and 389 charging stations nationwide in addition to exporting over 70% of our products to 64 countries abroad.

VALUE NO.1
Energy & Chemical Partner

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

2020 Core Issue

We will create new value and pioneer the future
as your Value No.1 Energy & Chemical Partner.



Overview

2020 Core Issue

ESG Management System

- ISSUE 1 Road to Future
- ISSUE 2 Eco-friendly Management
- ISSUE 3 Safety and Health Management
- FOCUS Response to COVID-19
- UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

ESG Management System

Establishment of Sustainability Committee and Strengthening of ESG Management

While the global business environment undergoes rapid changes, **GS** Caltex is managing wide-ranging ESG(Environmental, Social, Governance) issues and steadily improving the company's system in pursuit of sustainable management. Going forward, we will strengthen ESG management and broaden practices aligned with the **GS** Group-wide eco-friendly ESG management strategy.

Establishment of **GS** Group's core value : 'Growth through Sustainability'

Driven by a strong commitment to eco-friendly management, **GS** Group and its affiliates carried out the Environmental Sustainability Project and subsequently introduced 'Growth through Sustainability' as a core value.

'Growth through Sustainability' can be divided largely into three values that allow measures to be implemented in stages : Reduce resource consumption and emissions of hazardous materials in collaboration with affiliates. Improve experience at contact points between consumers and the company to enable a sustainable daily life for both consumers and employees. Innovate digital and bio technologies to secure environmentally sustainable growth engines.

Launch of Sustainability Committee(CGO Committee)

The Sustainability Committee comprises the Chief Green Officers(CGOs) of each **GS** Group affiliate and acts as the highest decision-making body regarding reviews and decisions about the Group's ESG management, eco-friendly new businesses, etc. **GS** Caltex is an active participant of the committee and contributes to the monthly discussions of pending issues related to social contributions, shared growth, sustainable management, safety·health·environment(SHE), and more.



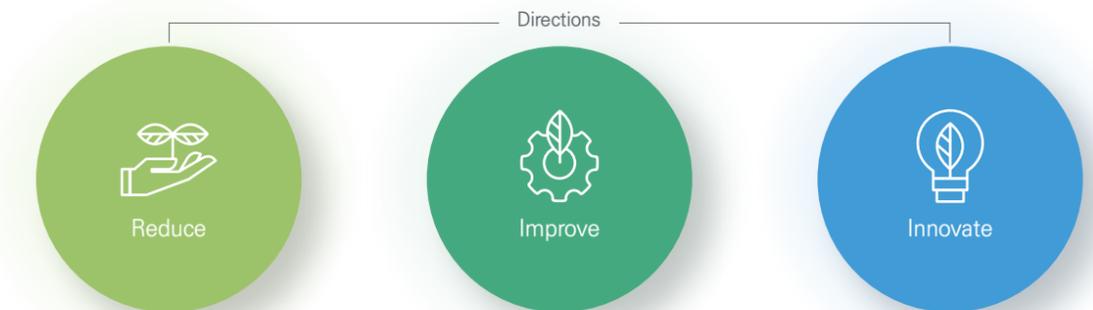
Growth through Sustainability

GS Group strives for environmentally sustainable growth.

- We will create measures to conserve resources and reduce emission of hazardous materials in collaboration with affiliates.
- We will improve experience at contact points between consumers and the company so both consumers and employees can benefit from a sustainable everyday life.
- We will innovate digital and bio technologies to secure environmentally sustainable growth engines for our businesses.

Target Areas **Resource, Emission, Energy**

Enabler **Digital & Bio Technology**



Effect on the Environment

Less harmful

Net zero

Positive

Principles

Minimize carbon emissions and generation of waste materials/trash.

Reduce waste by raising efficiency of resource usage and energy conversion process.

Reduce possible risks by acting proactively to protect the environment.

Improve business process(product development, supply, distribution, recovery, etc.) to be more eco-friendly.

Foster eco-friendly work environment and culture of voluntary action.

Improve consumer contact points so consumers can enjoy eco-friendly daily life.

Discover eco-friendly resources and materials.

Innovate business model and portfolio to be more eco-friendly.

Secure new growth engines for environmental sustainability.

Overview

2020 Core Issue

ESG Management System

- ISSUE 1 Road to Future
- ISSUE 2 Eco-friendly Management
- ISSUE 3 Safety and Health Management
- FOCUS Response to COVID-19
- UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Key ESG Activities

Committees for ESG Management

Since 2010, **GS** Caltex has convened a CSR Committee chaired by the CEO to make decisions on important issues related to CSR strategy and resource input.

In February 2020, the CSR Committee decided to proceed with a project to build an ESG management system on par with global standards. The committee conducted external and internal analyses, examining the industry environment and conditions at **GS** Caltex to identify areas of improvement. These findings are the basis of our mid- to long-term ESG roadmap for improving and managing our ESG standards.

The CSR Committee was reorganized and expanded into the ESG Committee in February 2021 to help strengthen ESG management practices. Led by the CEO, the committee discusses and makes decisions on ESG issues centered on climate change measures, including the pursuit of new eco-friendly businesses, reduction of environmental pollutants, sustainable distribution networks, human rights risks, etc. We also created the COVID-19 Emergency Response Committee, adding to our roster of various committees focused on improving company-wide sustainable management in tangible ways.

ESG Initiative and Participation in Policies

Since joining the UN Global Compact(UNGC) in 2010, **GS** Caltex has consistently pursued activities in accordance with the Ten Principles of UNGC concerning human rights, labor, the environment, and anti-corruption. In particular, we have expressed our commitment to ESG management by signing a statement for cooperation on Sustainable Development Goals(SDGs) in honor of the 75th anniversary of the United Nations in 2020 as well as endorsing the UNGC anti-corruption initiative in 2021. We have also sought to discuss the effective promotion of ESG investment and management in Korea by attending the National Assembly's ESG forum in March 2021. Additionally, we attended the Ministry of Trade, Industry and Energy's April 2021 meeting on the K-ESG Index as the oil refining industry's representative and helped lay the groundwork for the development of K-ESG guidelines that consider domestic laws, industry characteristics, business environment, and more. We will continue to seek social change by bolstering ESG management within the industry through diverse efforts in cooperation with other businesses and organizations.

Committees for Sustainable Management

 <p>ESG Committee Discuss and make decisions on ESG issues</p>	 <p>Corporate Compliance Committee Discuss and make decisions on compliance issues, share best practices</p>	 <p>Strategic Investment Adjustment Committee Select/prioritize optimal investment proposals from company-wide perspective</p>	 <p>Occupational Safety & Health Committee Discuss and make decisions on key items concerning safety and welfare of workers (joint labor-management)</p>	 <p>Information Security Committee Discuss and make decisions on direction of company-wide information security policies</p>
 <p>Fair Trade Review Committee Conduct self-review to ensure fairness and transparency of trade</p>	 <p>Risk Management Committee Provide guidelines on risk management practices and review results</p>	 <p>Safety & Environment Committee Discuss and make decisions on SHE policies/strategies, select best practices, inspect safety awareness program</p>	 <p>Human Resource Committee Discuss and make decisions related to management and operation of organization and human resources</p>	 <p>COVID-19 Emergency Response Committee Manage COVID-19 risk response measures (guidelines, prevention, reaction, etc.)</p>

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Road to Future

ISSUE 1

Why is this topic important?

The energy industry faces an increasingly uncertain business environment at home and abroad due to the global recession and low-carbon green policies set by different governments. The COVID-19 pandemic greatly reduced the economy in 2020 and continues to do so in 2021. Such circumstances act as a serious risk to the energy and petrochemical industry which is particularly susceptible to external factors.

In order to overcome the crisis and gain the competitive advantage, we need to draw up a new strategy and strengthen our core competitiveness using digital technology. As applications of the technology expand from plant production, processes, and operations to customer contact points, partnerships, products, services, etc., digital transformation is emerging as an essential strategy for energy companies.

What is our approach?

GS Caltex is strengthening its existing refinery businesses while developing opportunities in petrochemicals and future-oriented new businesses. To shore up competitiveness in the former, we are pursuing a company-wide digital transformation and improving operational efficiency and profitability. We are also expanding our portfolio through the olefin business which will lay the groundwork for the growth of our petrochemical business.

In response to the changing low-carbon energy market, we are unearthing opportunities in sectors like EV/hydrogen charging, recycled plastics, etc. and securing growth engines through future-oriented energy hubs that expand the service scope of existing gas stations.

2020 Achievements

Built digital-based intelligent plants



Implemented project for MFC(mixed feed cracker)

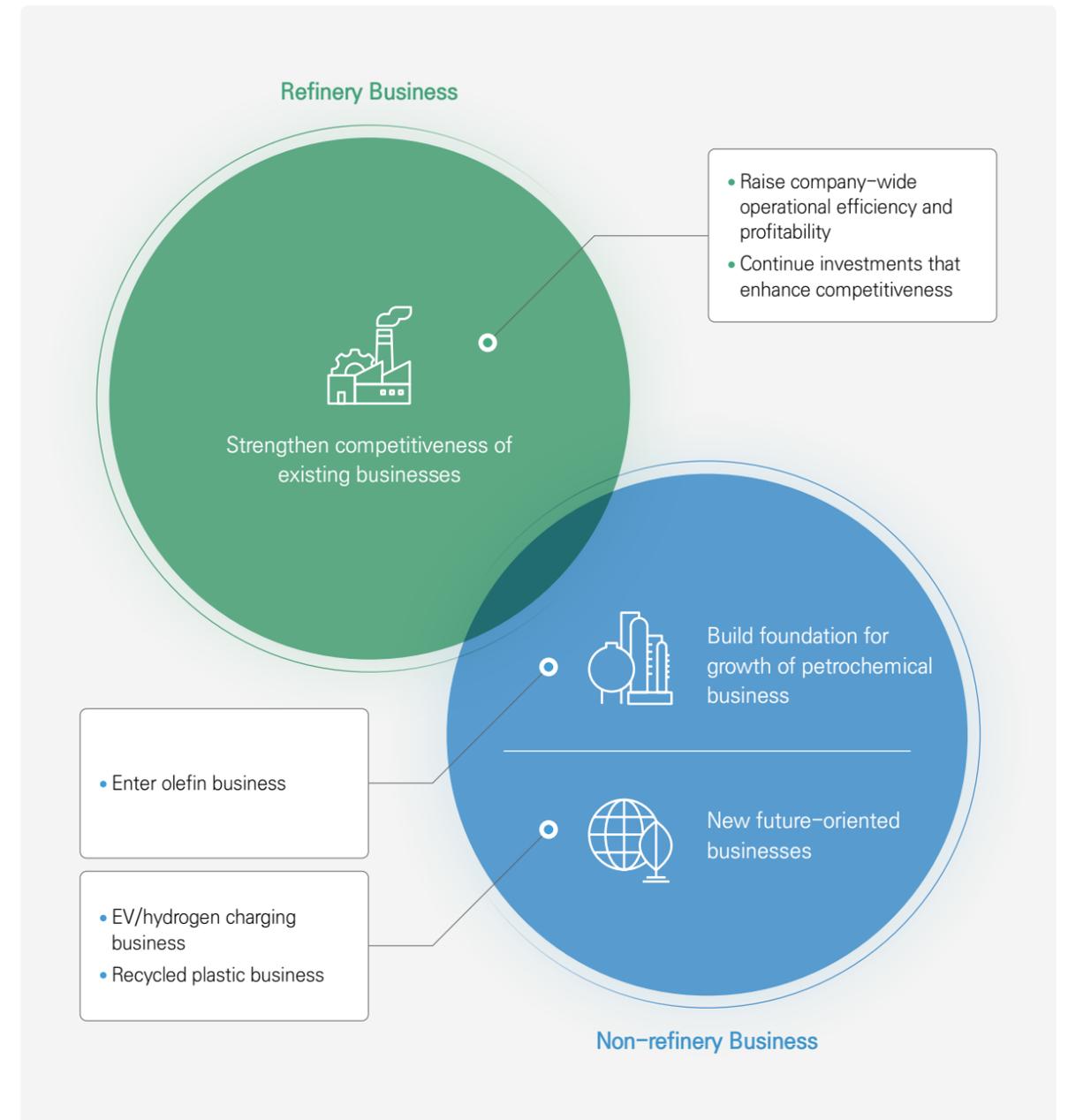


Opened Energy Plus Hub, the future-oriented gas station



Future-oriented Strategies

GS Caltex is building a balanced dual core portfolio of refinery and non-refinery businesses by strengthening existing refining operations and growing the petrochemical sector and discovering new future-oriented businesses.



VALUE NO.1
Energy & Chemical Partner

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Digital Transformation

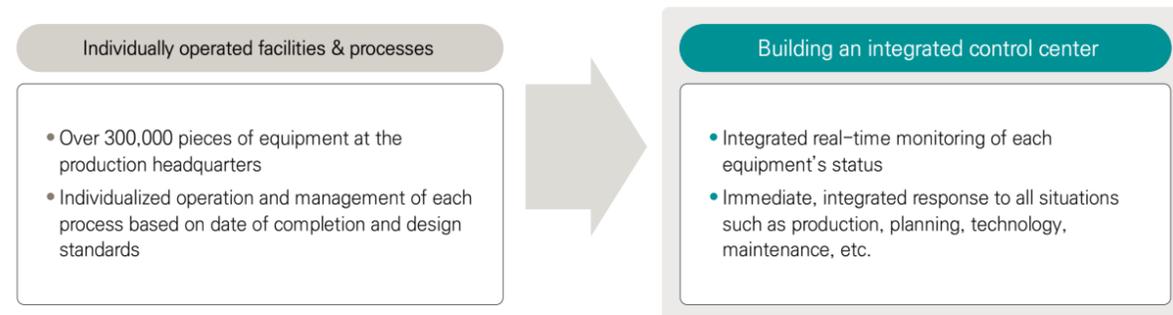
GS Caltex is pursuing digital transformation(DX) as a proactive measure against the rapidly changing digital environment. Our goal is to boost operational efficiency and enable fast and accurate data-based decision-making through constructive use of digital technology.

Since its establishment in 2020, the DX Team has explored various ways to realize a digital transformation, including making a road map, identifying opportunities for upgrades, adopting the agile methodology, and more. In 2021, we added a DX Center and DX Unit to each business to accelerate the transformation. In particular, the production headquarters is pursuing digitalization and the construction of intelligent plants to increase efficiency.

Intelligent Plants

Building an Integrated Control Center

We are building an integrated control center by 2030 to minimize loss at each stage of the process and optimize production.



Digital Twin

We use the Digital Twin-related technology to accurately create virtual replicas of the **GS** Caltex refinery. The Real Time Optimizer(RTO) enables us to tell the operator the optimal direction and to monitor the performance of the distillation columns, heat exchangers, and other important refinery equipment. We also operate an integrated RTO system which is connected to individual processes and provides the overall production guidelines for specific products.

The Operation Training Simulator(OTS) is a program that simulates the refinery's actual processes. It is used to replicate scheduled shut-downs and start-ups for major maintenance work as well as emergency situations like power failures or shutdowns caused by equipment failures.

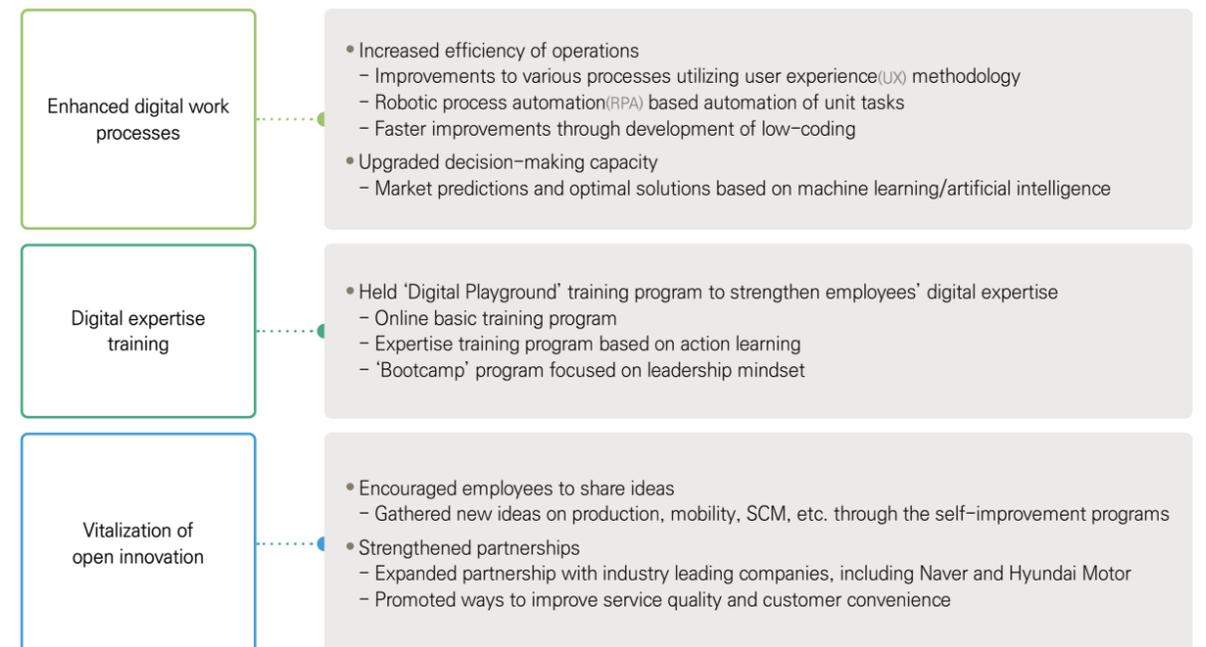
The Equipment Information Net system integrates information that is managed in separate systems into one searchable platform. It is also connected to existing 3D models of HOU/offsite processes to provide basic information about the equipment as well as its visualized form, location, space, etc. Beyond access to information, this platform can be used in design, maintenance, safety, training, emergency response, and many other applications.



●●● Digital Twin

Increased Efficiency through Digitalization

Through digital transformation(DX), we are changing the way we work to improve our productivity and capacity for swift and accurate decision-making.



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Olefin Business

Entry into the Olefin Market

GS Caltex is moving forward to enter the olefin market. The olefin business has the highest growth potential in the petrochemical sector and can be readily expanded into various downstream markets. As the first step, we are proceeding with the construction of a mixed feed cracker(MFC) which allow us to produce ethylene which is the essential olefin product widely used as a basic raw material in multiple industries, and polyethylene which is the ethylene downstream product commonly found in everyday objects like vinyl, containers, disposable goods, pipes, etc.

MFC Project Status

Construction of the MFC is a megaproject with costs amounting to approximately KRW 2.7 trillion and involving a 430,000m² site in Yeosu(roughly the size of 60 soccer fields). The resulting MFC will include production facilities with an annual capacity of 750,000 tons of ethylene and 500,000 tons of polyethylene as well as infrastructure and storage facilities.

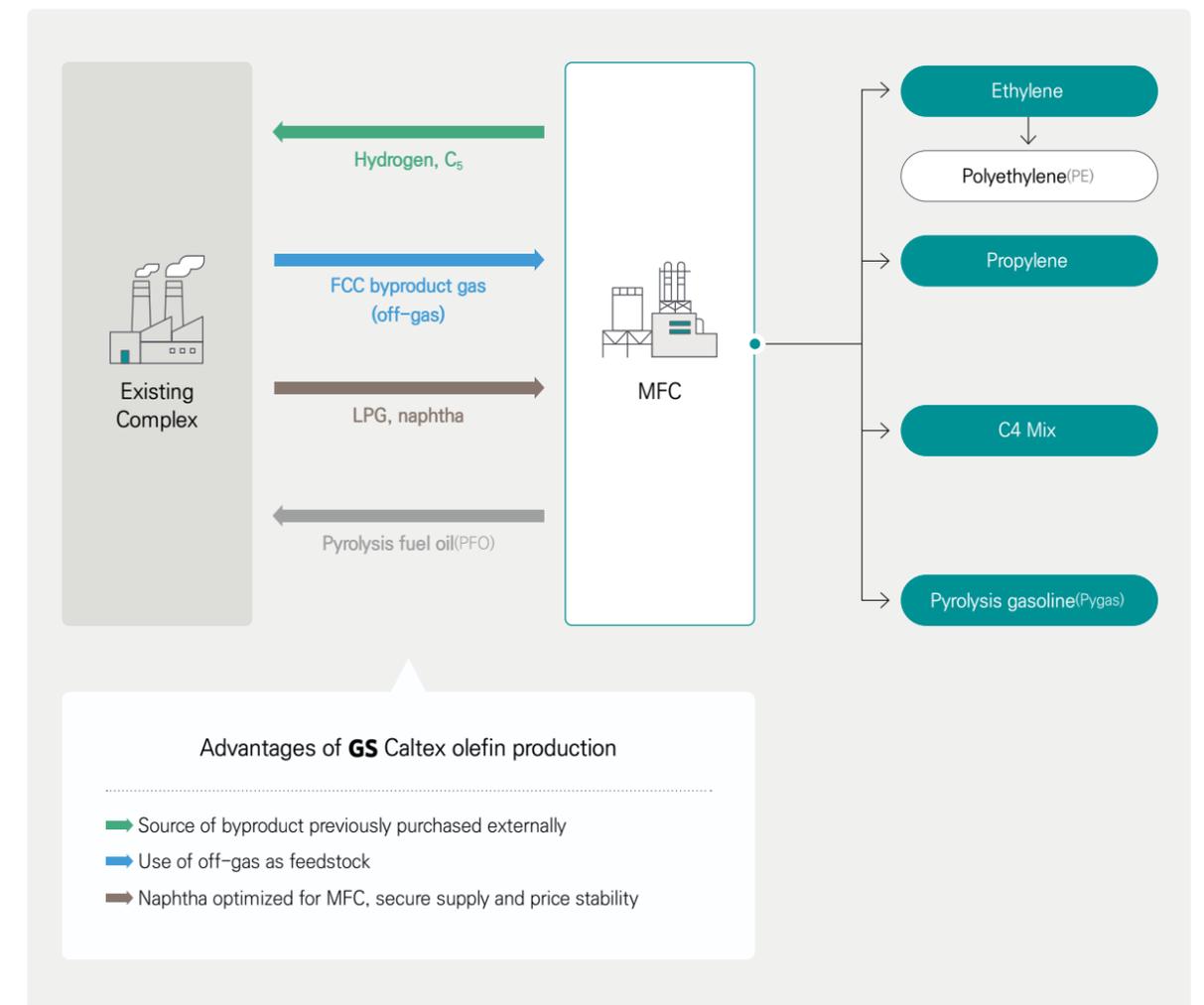
Construction on the MFC Project began in 2019 and reached mechanical completion in March 2021. We finished preparations for commercial production in the first half of 2021 and plan to begin production in earnest later in the year.



MFC Project Competitiveness and Future Plans

The MFC uses not only naphtha and LPG but also off-gas from our existing complex as a raw material, thus making it highly cost competitive. Byproducts like hydrogen, C₅, and PFO can be turned into value-added products at the existing complex. Considering the variety of materials and synergy with our current facilities, the MFC is expected to give us a competitive edge in the industry.

We anticipate improved profitability to follow our expansion into the olefin market with its potential for future growth. Moreover, as we enter the high value-added downstream market, we foresee our competitiveness in petrochemicals growing stronger as well.



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

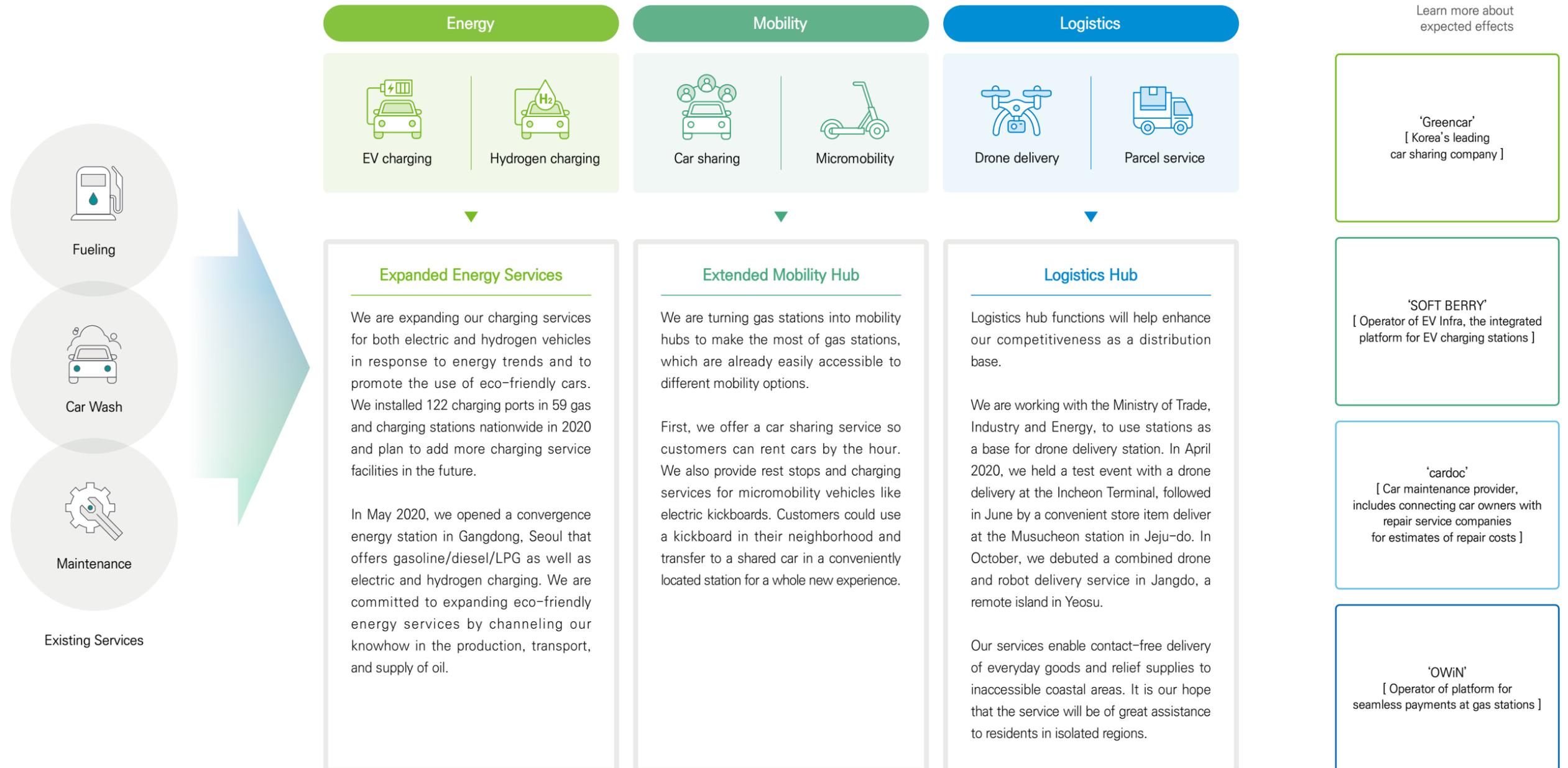
Appendix

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Evolution of GS Caltex Gas Stations

GS Caltex is preparing to shape a new future in step with the rapidly changing times and environment. We seek to pioneer innovations in gas stations through digital technology that can be applied to changes in energy and mobility. We will expand stations that used to offer fuel, car washes, and maintenance into energy-mobility-logistics hubs that better reflect our customers' lifestyles and provide new experiences and value.

GS Caltex's Future-oriented Gas station



Overview**2020 Core Issue**

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements**Key Data & Performance****Appendix****Launch of Energy Plus Brand**

Under the Energy Plus brand, launched in 2020, **GS Caltex** is integrating future-oriented businesses that exemplify our determination to change and expand as an energy company.

e+ energy plus

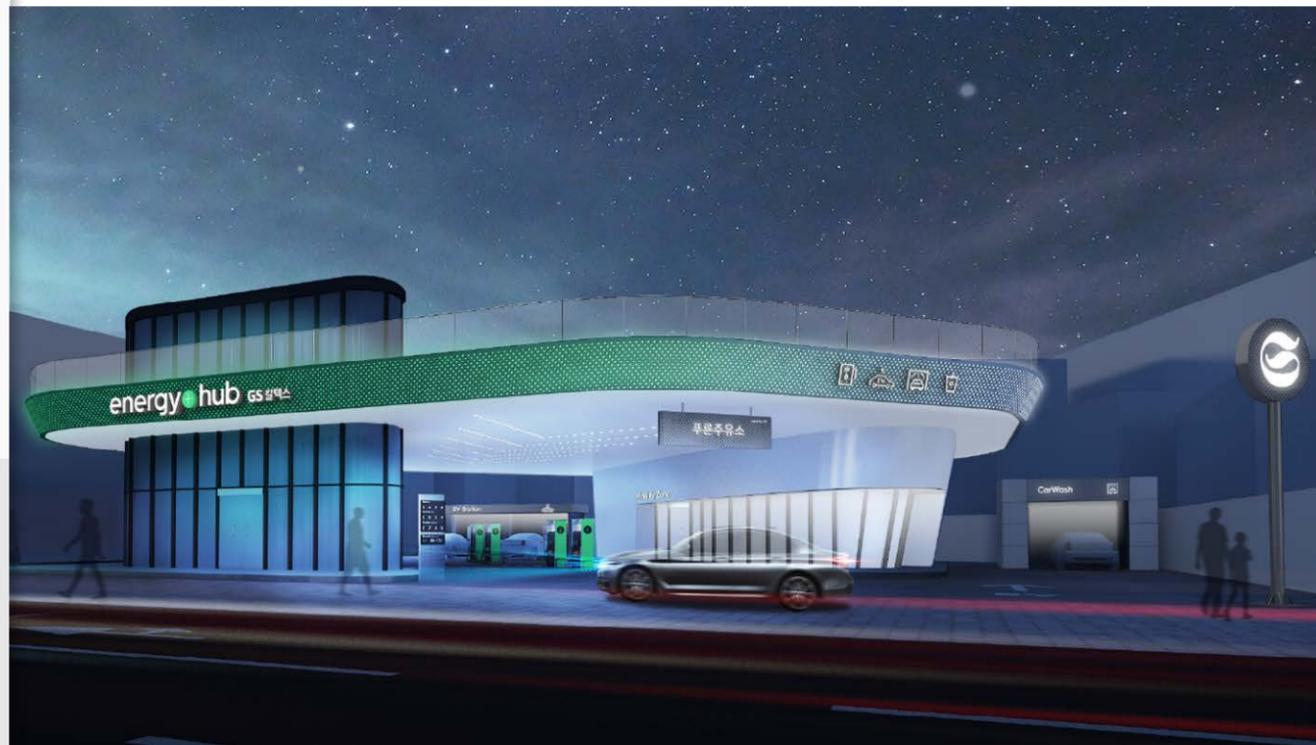
The combination of the 'e' from energy and the plus circle icon represents energy that is expanding and transforming in variegated ways beyond the confines of traditional energy sources. Green evokes nature, growth, and hope. It is also a shade that goes well with all other colors and we hope to achieve a similarly harmonious balance between the company, people, and environment. The symbol signifies a new beginning toward that goal.

Future-oriented Gas Station energy+ hub

The Energy Plus Hub, applied with the Energy Plus brand, is the future-oriented gas station that **GS Caltex** pursues. We reinterpreted existing stations to produce a novel customer experience. The result is a new kind of energy charging space with expanded energy·mobility·logistics services that also allows customers to enjoy food and beverage-based lifestyle services.

Energy Plus Hub is designed to reflect eco-friendly values and each offers differentiated services. Having opened the Sambang Hub in Seocho-gu, Seoul in November 2020, we will proceed to install Energy Plus Hub in more stations, starting with the key locations.

Energy+ Hub Prototype Image



VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report



Watch video about **GS Caltex** at CES 2021

GS Caltex, First-time Participant at CES 2021

We shared our innovations in drone delivery and Energy Plus hub at CES 2021, the largest IT and electronic goods trade show in the world. Although this year's CES was moved online due to the global pandemic, we succeeded in conveying our vision for the future of gas stations, including drone delivery, through three vividly imagined videos.

We will build on our participation to network with other global companies and form partnerships. At the same time, rather than confining ourselves to logistics, mobility services, and other businesses related to future-oriented gas stations, we will continue to explore possibilities in a diverse range of sectors.

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix



●●●
H Gangdong Hydrogen Charging Station

Entry in the Hydrogen Market

The world today is undergoing an energy transition with an increasing number of global policies that support low-carbon and hydrogen economy. To stay in-step and contribute to such changes, **GS Caltex** has advanced into the hydrogen business as a supplier of eco-friendly energy. We will leverage the resources, experience, and competencies that come from operating a large-scale hydrogen production facility as well as international and domestic fueling/charging networks to shape the hydrogen market. In doing so, we aim to maximize people's access to more affordable and convenient hydrogen energy.

To that end, we opened a Convergence Energy Station with hydrogen charging services and signed MOUs with the Korea Gas Corporation(KOGAS) and Korea East-West Power Corporation(EWP) to develop our hydrogen business value chain. In July 2021, we also established a separate organization to actively drive new businesses related to hydrogen with domestic and international partners.

Convergence Energy Station

In May 2020, **GS Caltex** and Hyundai Motor Co. unveiled a convergence energy station equipped with hydrogen charging facilities. Called 'H Gangdong Hydrogen Charging Station | **GS Caltex**,' it is the first hydrogen charging station to be installed on a private site in Seoul. It is run by **GS Caltex** to support the government's policy on the hydrogen economy. As the future of mobility changes, the new energy station will be able to distribute most types of energy sources, including hydrogen, electricity, gasoline, diesel, and LPG.

VALUE NO.1
Energy & Chemical Partner

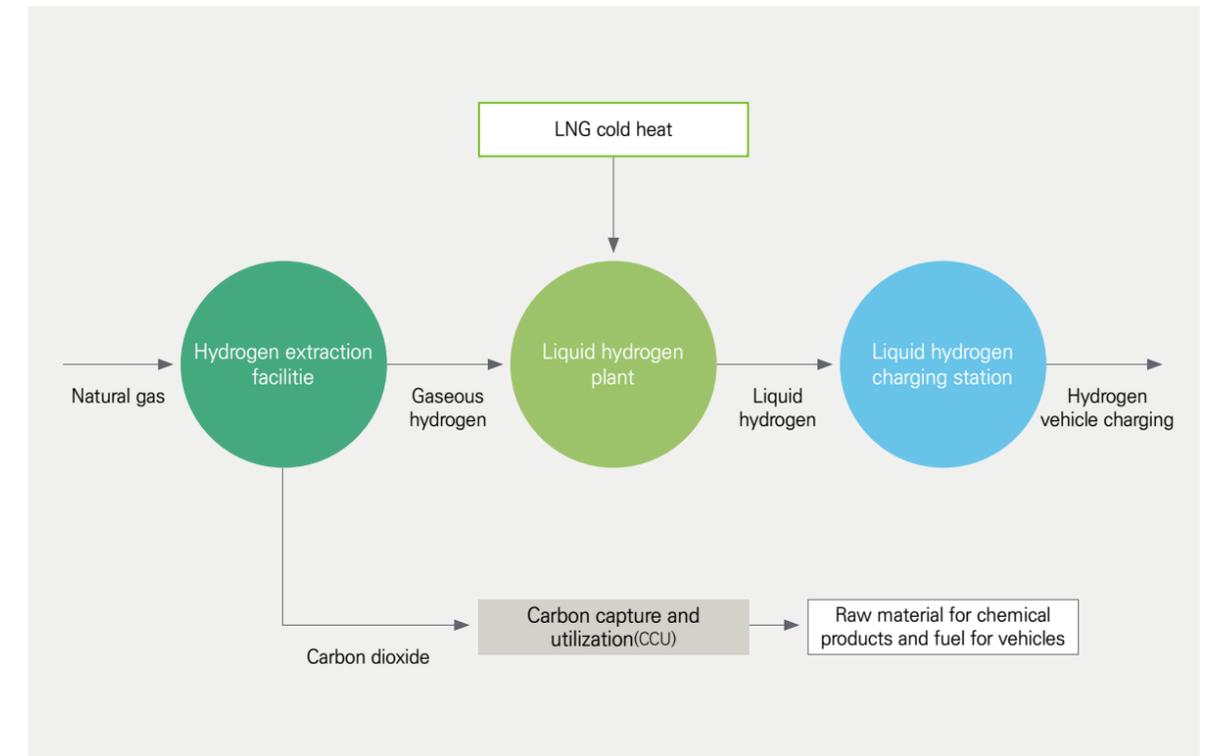
Partnerships and MOUs

In May 2021, **GS Caltex** signed a MOU with KOGAS for the production and supply of liquid hydrogen. The goal is to complete construction of a liquid hydrogen plant inside KOGAS Pyeongtaek LNG Terminal. We would distribute the product to the Seoul metropolitan area and middle regions of the country. This will mark the first time in the world liquid hydrogen is produced utilizing LNG cold heat that was previously lost in the process of vaporization. This innovative technology can reduce the energy consumption required during the production process.

We will also build liquid hydrogen charging stations in the regions where we plan to sell the product. Compared to gas hydrogen stations, liquid hydrogen stations only require a third of the land of gas hydrogen stations and are therefore easier to set up in cities, increasing accessibility for customers. Liquid hydrogen takes up less volume as well and will greatly reduce transportation costs. Utilizing our experience in Pyeongtaek and nationwide network, we aim to facilitate the use of accessible and affordable hydrogen among more people.

Furthermore, we plan to expand the hydrogen business beyond mobility to power generation. As the first step, we signed a MOU with Yeosu City and EWP in June 2021 to promote the hydrogen economy and pursue carbon neutrality. Together with EWP, we will invest to construct a fuel cell power plant within EWP's Honam Coal-Fired Power Plant on unused land. Electricity generated from eco-friendly hydrogen is expected to be available to approximately 50,000 households. Unlike hydrogen fuel cell power plants that use LNG, we will use by-product hydrogen which will not emit carbon dioxide. Another advantage is that built-in filters in our fuel cell plant will purify the air of ultrafine dust particulates.

GS Caltex-KOGAS Liquid Hydrogen Value Chain



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Eco-friendly Management

ISSUE 2

Why is this topic important?

Corporate actions to address climate change have a significant effect on assessments, investments, and regulations related to the company's sustainability. These issues are of extreme importance, particularly in an industry like ours which has high levels of environmental impact and energy dependence. In order to become a sustainable company, it is necessary to establish a preemptive strategy in response to environmental change, expand the portfolio of eco-friendly businesses, and implement plans for reducing environmental impact.

What is our approach?

GS Caltex instituted an eco-friendly strategy connected to the concept of a circular economy to practice eco-friendly management at every step of our value chain, from resource procurement to production to sales-consumption to recycling. We are also expanding our product portfolio by developing eco-friendly products and technologies. Other efforts include issuing KRW 130 billion worth of Green bonds¹⁾ to raise funds for eco-friendly facilities at the Yeosu Complex and replacing low sulfur fuel oil(LSFO) with liquefied natural gas(LNG) to power the production in Yeosu.

1) Green bonds : Issued to raise funds for investment in eco-friendly projects

2020 Achievements

Replaced LSFO with eco-friendly LNG to power Yeosu Complex



Produced recycled PP compound using waste plastic as raw material



Produced eco-friendly 2,3-BDO using natural raw materials

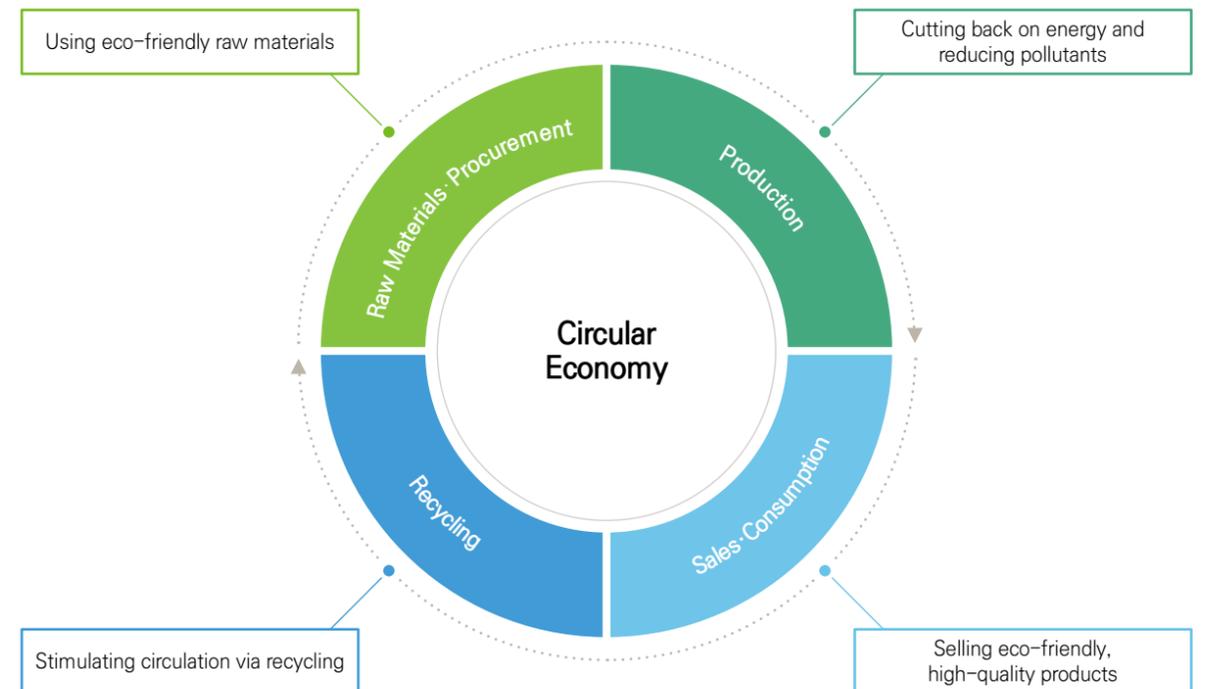


Eco-friendly Management System

Eco-friendly Strategy

With the goal of achieving a circular economy across our entire value chain, we engage in various activities to reduce environmental impact, including activities related to climate change, energy use, water resource, waste materials, and more. We are also expanding our eco-friendly business with products like the recycled PP compound and 2,3-BDO and pursuing projects to improve the environment.

In 2021, we established a separate division to discover and commercialize opportunities with agility in response to environmental changes. Furthermore, we accepted 'Growth through Sustainability' as a core value for all of **GS** Group and will carry out more diverse, eco-friendly practices and businesses going forward.



Eco-friendly Product	Eco-friendly Facility	New Eco-friendly Business	GHG	Energy
Air Quality	Water Resources	Waste	Hazardous Chemicals	Soil Quality

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 **Eco-friendly Management**

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

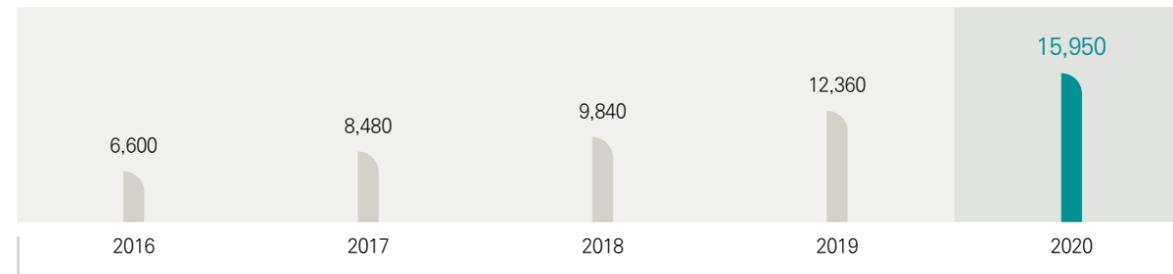
Expanding Portfolio of Eco-friendly Products

Recycled PP Compounds

GS Caltex is the only oil refinery company in Korea to produce recycled polypropylene(PP) compounds. Made with waste plastic, PP compound is a functional plastic widely found in components of automobile cooling and heating systems, washing machines, air conditioners, refrigerators, and other home appliances. Recycling waste plastic into PP compound rather than incinerating it equates to reducing carbon dioxide emissions by 61,000 tons per year. That has the effect of planting 9.3 million pine trees.

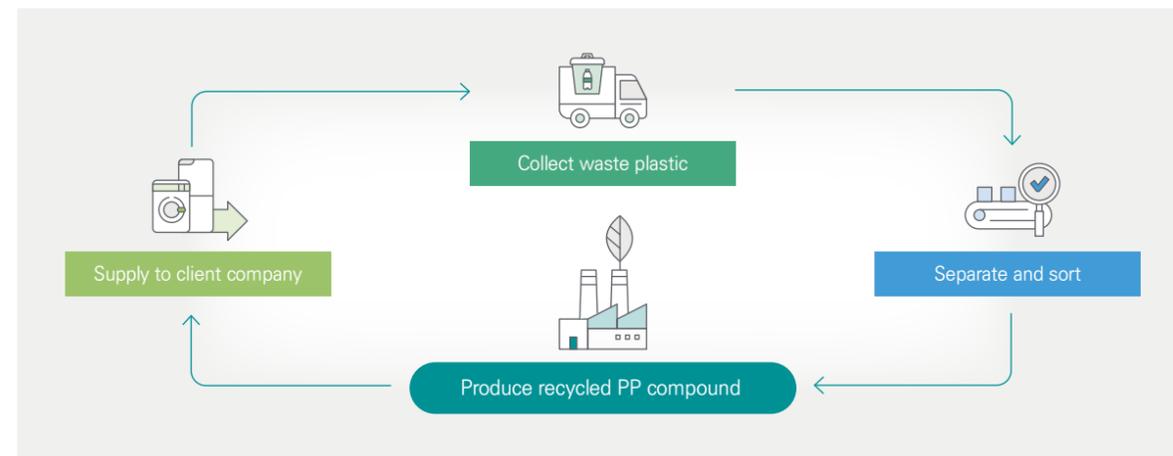
Sales of recycled PP compound are growing over 20% yearly throughout the country and our own sales are likewise increasing. Demand is expected to rise steadily as policies about recycling waste plastic tighten and more domestic and international companies find needs for eco-friendly products.

Domestic Sales (Unit : ton)



MOU to Recycle Plastic Bottles

On January 27, 2021, **GS** Caltex and Amorepacific signed a MOU to pursue systematic recycling of plastic bottles. Amorepacific will upcycle 100 tons of the used bottles it collects every year into recycled PP compounds, which would in turn be used to make their products and other items. According to the agreement, the goal is to raise the share of recycled plastic to 50% by 2025. Meanwhile, **GS** Caltex will continue to provide a platform for waste plastic solutions by entering into more such MOUs with global companies.



2,3-Butanediol

We began research on 2,3-Butanediol(BDO) in 2007 and have since developed in-house bioengineering technology for its mass production. 2,3-BDO is fundamentally a substance found in the natural world, including fermented and natural foods, plants, animals, and the soil. Our technology produces such eco-friendly 2,3-BDO using non-GMO¹⁾ microorganisms and feed. We also rely only on physical properties of the substance without the use of chemicals to separate and purify, making the entire production process eco-friendly.

2,3-BDO has over fifty patents pending in Korea and was registered with the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals(REACH)²⁾ in 2019. In November 2020, 2,3-BDO received the IR52 Jang Young-shil Award which is conferred to outstanding new products by the Ministry of Science and ICT. We have also earned numerous certifications in Korea and around the world in recognition of our product's eco-friendliness and advanced technology.

1) GMO : Genetically Modified Organism
2) EU-REACH : European Union system for regulating new chemical substances

Certifications and Awards



3) COSMOS : COSMetic Organic and Natural Standard. Certification for organic and natural cosmetics products issued by five European organizations in France, Germany, Italy, and the UK.
4) USDA Certified 100% Bio-based Product : Certification issued by US Department of Agriculture for eco-friendly, 100% bio-based products that do not contain any petroleum-based materials.
5) Vegan : Certification issued by Korea Agency of Vegan Certification and Services for products that do not use animal products and have not been tested on animals
6) IR52 Jang Young-shil Award : Given to one product per week by the Ministry of Science and ICT in recognition of the developers' contribution to cost-efficient innovations.
7) New Excellent Technology : Certification for outstanding new technologies developed by domestic companies, research institutes, universities, etc. System designed to boost commercialization and credibility of new technology products and to build foundation for market entry.
8) New Excellent Product : Discovery/evaluation/certification of original products developed in the first time in Korea. System designed to facilitate early sales of new products in support of SMEs.

In March 2020, **GS** Caltex launched the GreenDiol[®] brand of cosmetic grade 2,3-BDO. As of March 2021, leading domestic and international cosmetic companies have released over 70 products containing our ingredient. With sales on the rise, 2,3-BDO is garnering attention for its eco-friendly value and superior performance. We will continue to develop products with diverse applications in crop protection products and fertilizers, food additives, pharmaceuticals, polymer additives, solvents, and more.



▶ Watch video about 2,3-Butanediol

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

High-stiffness Thermo-Plastic Elastomer(TPE)

We focused on developing eco-friendly, high-performance polymer materials that can help enhance fuel efficiency and reduce GHG emissions in automobiles. The result, high-stiffness thermoplastic elastomer(TPE), received the IR52 Jang Young-shil Award in the 27th week of 2019.

Our TPE is a superior composite material of rubber with improved texture on the surface that gives it softness and long glass fiber in the interior to make it highly stiff and highly impact resistant. We achieved zero wastewater discharge by eliminating the coating process. Moreover, the resulting TPE significantly reduces the odor inside automobiles and emission of volatile organic compounds(VOC). Currently used in automotive door trim parts, this eco-friendly high-performance material is expected to have more applications.



R&D of Eco-friendly Products

Thanks to proprietary technology, we produce high-quality, eco-friendly gasoline, diesel, and other fuel oils that satisfy international standards. Meanwhile, we are continuing R&D efforts in a diverse range of areas related to eco-friendly technology, including GHG reduction, clean energy hydrogen, waste plastic recycling, and more.

Research Area	Description
<p>Energy</p>	<p>New Asphalt Products</p> <ul style="list-style-type: none"> Development of eco-friendly warm mix asphalt that emits less pollutants due to its lower paving temperature
	<p>Energy Efficiency Technology</p> <ul style="list-style-type: none"> Development of solutions to reduce energy consumption during oil refinery process
<p>Chemicals</p>	<p>Automotive Materials</p> <ul style="list-style-type: none"> Development of lightweight composite materials for vehicles of the future(electric cars, self-driving cars, etc.) Development of lightweight polypropylene and compounding materials for improved fuel efficiency Development of formed plastic material for lightweight components using foam technology Development of material for automotive components using natural, bio-based ingredients
	<p>Easily Recyclable Materials</p> <ul style="list-style-type: none"> Development of PP label film material for food packaging

Green Bonds

Issuance of Green Bonds

GS Caltex issued KRW 130 billion green bonds in October 2019. With the funds we raised, we are augmenting the environmental facilities in the Yeosu Complex, including facilities to reduce and manage pollutants and investment projects to manage water quality and improve energy efficiency. We have invested approximately KRW 67.2 billion in the effort as of 2020 and plan to make further environmental improvements as an investment in expanding our business.

Status of Key Projects



FACTS

Total Investment Cost **KRW 54.6 billion**

SOx Reduction **3,212 tons**

NOx Reduction **160 tons**

Investment Period **2019 - 2020**

No.1 HOU RFCC Wet Gas Scrubber

We invested approximately KRW 54.6 billion to replace the DeSOx system in our heavy oil upgrading facility, No.1 HOU(RFCC), with a wet gas scrubber to reduce SOx and NOx, named as causes of fine dust particulates

FACTS

Total Investment Cost **KRW 9.8 billion**

Reduction of COD emissions **90 tons**

Investment Period **2020 - 2021**

Ozone Advanced Oxidation Process

We are in the process of implementing the ozone advanced oxidation process(AOP) to our existing wastewater treatment facility to minimize the impact on the aquatic ecosystem. The upgrade is expected to reduce the generation of chemical oxygen demand(COD) pollutants by over 90 tons.

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 **Eco-friendly Management**

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Response to Climate Change

Greenhouse Gas(GHG) Reduction

Countries around the world are responding to climate change by establishing nationally determined contributions(NDC) to reduce GHG emissions and forming long-term low greenhouse gas emission development strategies while continuing to explore stronger goals and implementation plans.

Even before government level regulations on GHG reduction such as Korean Emissions Trading System(KETS) etc. came into force, **GS Caltex** has sought to respond proactively and preemptively to climate change issues by using low carbon energy and decreasing production facilities' emissions.

GHG Reduction Activities, Including Investments in Facility Improvements for High Energy Efficiency

We have continually invested in facility improvements at the Yeosu Complex to reduce GHG emissions and increase energy efficiency. As a result, we lowered an annual average of 230,000tCO₂eq GHG as of 2012~2020. Additionally, by replacing our boiler operation through receiving non-carbon emitting waste heat recovery steam from nearby companies within the Yeosu Industrial Complex, we reduced an annual average of 150,000tCO₂eq GHG as of 2015 to 2020.

We also acquired a cogeneration plant within our work site and replaced part of the electricity that we receive from a nearby coal-fired power plant. We plan to expand our low-carbon power supply and energy efficiency by operating gas turbines fueled by LNG and gradually adding more cogeneration plants that produce electricity and steam.

GS Caltex consistently carries out carbon emission reduction activities through such improvements to facilities. We have achieved the World top tier GHG emissions efficiencies as measured by the Carbon Emission Index™(CEI™), the benchmarking metric for assessing a refinery's carbon emissions compiled by Solomon Associates, specializing in the assessment of petroleum refineries. In order to maintain our world-class carbon emissions intensity, we will continue investments and activities that enable us to install high-efficiency facilities and improve efficiency in our facilities.

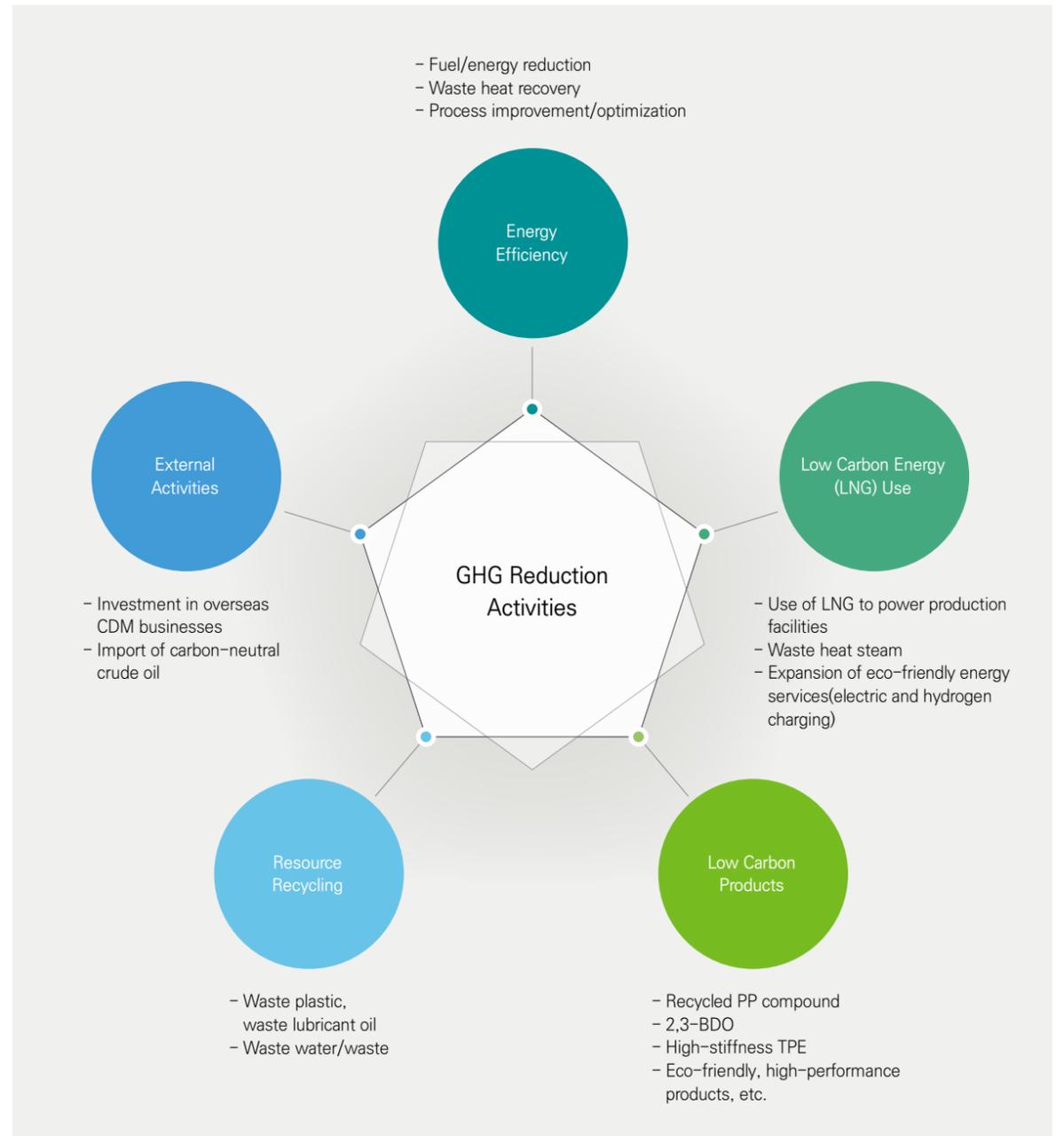
Conversion to Low-Carbon Energy

For low-carbon energy transition, **GS Caltex** has replaced Yeosu Complex fuel with fuel gas like natural gas and process off-gas. The process began in 2019 and we are now 100% powered by fuel gas. We directly import the natural gas we require. Thanks to such efforts, Carbon dioxide has been reduced by approximately 19% compared to conventional fuel emissions, while emissions of SO_x, NO_x, and other pollutants that cause fine dust particulates was reduced by over 30%. We also replaced all two-wheeled vehicles with electric carts within Yeosu Complex as another way to convert to low-carbon energy.

Our plan is to continue expanding eco-friendly energy services necessary for the dissemination of eco-friendly vehicles in Korea, including our electric and hydrogen charging business.

Introduction of Korea's First Carbon Neutral Crude Oil

GS Caltex imported 2 million barrels of Carbon Neutral crude oil from Sweden's Lundin Energy for the first time in Korea in June 2021. The crude oil comes from Norway's Johan Sverdrup offshore oil field where the extraction process produces 40 times lower carbon emissions than ordinary oil fields. Further, residual emissions are offsetted to achieve carbon neutrality.



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 **Eco-friendly Management**

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Production and Supply of Biofuel

GS Caltex established **GS** Bio in 2010 as a wholly owned affiliate specializing in biofuel production. **GS** Bio processes biomass raw material to manufacture and supply biodiesel in addition to manufacturing glycerin and functional feed additives based on high-value-added by-product research.

GS Bio produced approximately 645,000kl in the past five years(2016~2020), which reduced approximately 1,710,000tCO₂eq GHG emissions by replacing petroleum.

Expansion of Resource Recycling Business

GS Caltex lubricants business operates within a systematic recycling ecosystem. Automobile lubricants go through recovery and recycling processes. We also recover and recycle small plastic containers. Compared to waste generated, our recycling rate reaches 70~80%.

We are also looking for opportunities to further reduce GHG emissions by producing recycled PP compound out of waste plastic. As part of this effort, we partner with a cosmetics company customer to recycle 100 tons of empty plastic bottles into recycled PP compound, which in turn is used to make cosmetics containers and others.

Overseas GHG Reduction Activities

Since 2018, we have been providing cookstoves to developing countries as part of our efforts at global GHG reduction. These cookstoves take the place of traditional cooking appliances in homes and can reduce fuel costs by up to 66%. High-efficiency cookstoves produce less soot and smoke through improved air circulation and require less firewood thanks to improved combustion efficiency. This leads to improved health as well as better quality of life through environmental conservation, not to mention contributing to GHG reduction. We have distributed cookstoves in Myanmar, Malawi, and Zambia. We plan to continue exploring and investing boldly in global opportunities for GHG reduction.

Korean Emissions Trading System Compliance

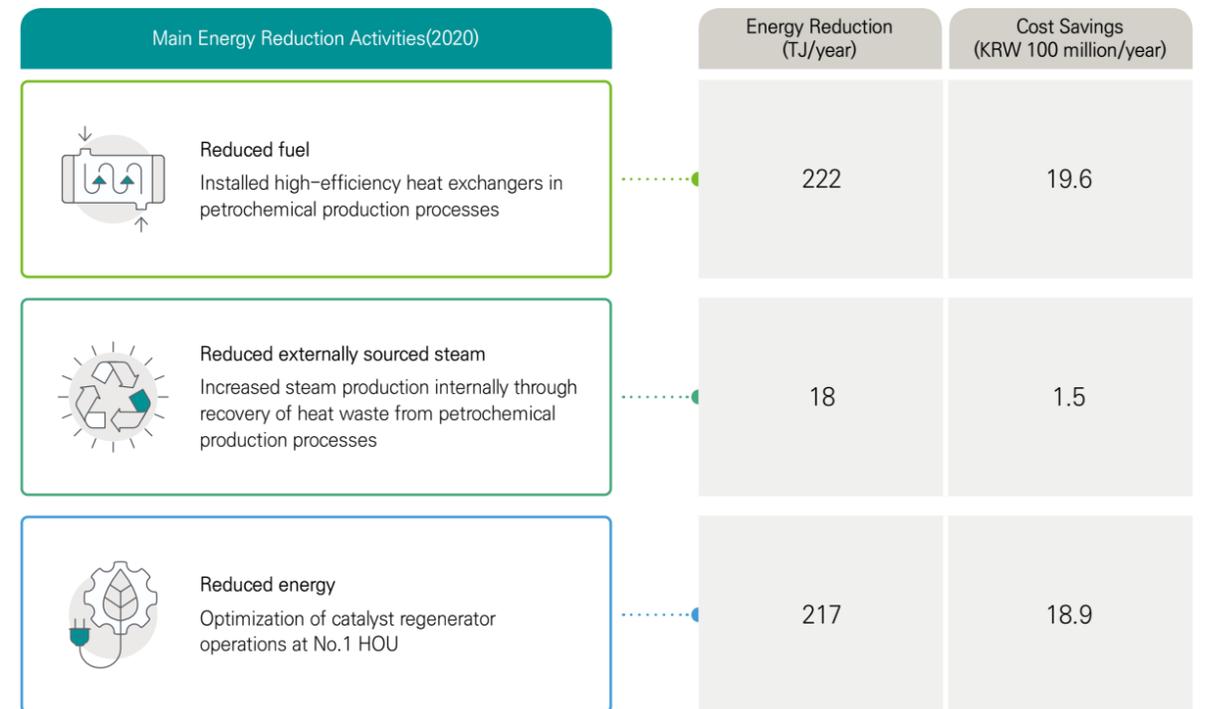
GS Caltex faithfully fulfills obligations under the Korean Emissions Trading System and successfully complies with the nation's climate change policy. Moreover, we are getting ready to go beyond complying with regulations as we prepare to adopt the Task Force on Climate-related Financial Disclosures(TCFD) recommendations to strengthen our environmental management, such as climate finance and greenhouse gas reduction management, by analyzing the impact of companies on climate change to strengthen climate finance, GHG reduction management, and more.

Energy Use Reduction

GS Caltex created a mid- to long-term roadmap to reduce energy costs and improve efficiency. Based on the roadmap, we continually adopt innovative technologies by drawing our ideas from employees' proposals, outside consulting services, benchmarked best practices from home and abroad, etc. We strive to reach the ambitious goal we set for ourselves each year and consequently saved approximately KRW 15 billion in 2020.

In addition, we are able to effectively manage ongoing energy reduction activities through an energy monitoring system. We will continue to optimize our processing operations, expand our energy reduction categories, and invest proactively in the mid- to long-term energy reduction activities.

GS Caltex is responding proactively to climate change by using energy efficiently and reducing costs. In 2020, we carried out 30 new energy-reducing activities while continuing to monitor prior activities.



Click to see the relevant data

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 **Eco-friendly Management**

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Environmental Impact Reduction Activities

Air Quality Management

Air Pollutant Management

We are making a multifaceted effort to reduce air pollutants in accordance with the government's Total Air Pollution Load Management System(TMS)¹⁾ which was implemented in 2020. In facilities that produce large amounts of sulfur oxide(SO_x) and nitrogen oxide(NO_x), we installed ultra low NO_x burners(ULNB) and selective catalytic reduction(SCR) equipment. We also employ various other measures to reduce air pollutant emissions, including electrostatic precipitators, odor incinerators, and organic compound collectors.

1) The Total Air Pollution Load Management System sets limits on the emissions of sulfur oxides, nitrogen oxide, and particulate matters at work sites. Work sites are expected to keep emissions below the allocated level through measures that include installing appropriate facilities.

Air Pollutant Emissions Monitoring

We have installed tele-monitoring systems(TMS) in the main chimneys at our work sites to monitor the concentration level of air pollutants and thereby reduce SO_x and NO_x emissions which are thought to cause fine dust particulates. Through TMS, we monitor NO_x, SO_x and total suspended particles(TSP) in real time; immediately analyze the cause when concentration levels exceed the threshold; and look for corrective measures. We installed TMS in fourteen vents as of the first half of 2021 and plan to install TMS to an additional 43 vents by the end of 2022.



Water Resource Management

We monitor industrial water consumption in all **GS** Caltex work sites and practice safe and efficient management of industrial water consumption by controlling the advection between processes and adjusting the amount in water tanks. Furthermore, we expanded the applications of the high-pressure mist fog system to reduce industrial water consumption and are currently reviewing the feasibility of implementing a variety of methods to recycle the various types of industrial water, including used water, rainwater, and wastewater.

Water Resource Risk Management

We seek to minimize 'water stress' by calculating the water consumption involved before we begin a new project. If adding extensions to an existing facility or starting a new project increases the consumption of industrial water, we maintain close communications with Korea Water Resources Corporation(K-water) to ensure a smooth supply. If we need to increase consumption for supply equipment within our work sites, we first inform and submit a request to K-water so the water is available when required. We have also built a new industrial water storage tank to sustain the supply for a certain period even if there is a disruption in the supply and demand of industrial water supply.

Soil Quality Management

GS Caltex prevents soil contamination by conducting a regular inspection of the soil at each gas station. In addition, to avoid soil contamination, our gas stations are equipped with double-wall tanks, double piping, oil overflow prevention facilities, and other leakage or spillage prevention facilities. At Yeosu Complex, we are relocating underground oil pipes to above the ground as a means of fundamentally blocking oil and soil pollution. Among other rigorous efforts to prevent soil contamination, we equipped all areas of Yeosu Complex with monitor wells for real time tracking of soil and groundwater quality.

Odor Management

We are making every effort to keep malodor emissions below the maximum permitted level since Yeosu Industrial Complex was designated a malodor control area on July 1, 2019. We installed and operate a VOC recovery system to reduce the odors emitted during tank OSS²⁾ and in June 2021, finished installing catalytic oxidation equipment in wastewater treatment facilities and other places where odors might occur.

Additionally, we installed real time odor monitoring systems in fifteen places, including the MFC, so that we could monitor odors in areas bordering our work sites. These are operated in conjunction with monitoring equipment mounted on moving vehicles.

2) Tank OOS(Tank Out of Service) : Procedure in which tank is emptied for comprehensive internal and external maintenance.

Click to see the relevant data



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Waste Management

We carry out diverse eco-friendly activities that reduce waste and maximize recycling. We use our self-developed SHE(Safety·Health·Environment) information system to share data on waste materials from their generation at production sites to storage and treatment. We are guided by the system in our efforts to reduce waste. To maximize recycling, we are meticulous about separating and storing waste materials by type. We are also continuing our work with recycling companies to develop recycling technology and look for sources of demand for tank sludge, waste oil, catalysts, synthetic resin, wood, etc.

Hazardous Chemicals Management

Through stable operations of our marine safe vapor recovery unit(VRU¹⁾) and aromatic tank VRU as well as leak detection and repair(LDAR), we retain strict control over benzene, toluene and xylene production. Furthermore, **GS** Caltex continuously provides chemical spill response training for our employees to execute optimal initial actions on hazardous chemical spill incidents and minimize the spread of contamination damage to the local community. In addition, we established an emergency response group and joint accident prevention plan with other companies in the Yeosu Industrial Complex in 2013 and work with them to conduct an annual training program.

We have also placed detection and alarm devices, protective equipment and kits around hazardous material storage facilities in case of accidents. Moreover, to ensure our partners' safety, we conduct quarterly safety inspections and trainings for partners who handle hazardous chemicals through a safety council.

1) Vapor Recovery Unit

Biodiversity Conservation and Management

Marine Oil Spill Response Scenario Activities

To prevent marine pollution accidents that may occur during oil loading and unloading operations, we have devised a marine oil spill response scenario for each pier to prevent and control the spread of oil spills. In addition, we periodically conduct education and training on oil spill response scenarios. Furthermore, before the ship loading and unloading procedure, we use offshore booms to prevent leakage of hazardous chemicals, such as oil, and carry out the loading and unloading operations.

Biodiversity Conservation Activities

We recognize the importance of biodiversity conservation and work with government agencies, the local community, etc. to manage our impact on biodiversity near work sites. None of our domestic or overseas sites have been identified as part of a protected ecosystem or habitat for endangered species, nor were there any cases of hazardous leaks or impact on the biodiversity as of 2020.

Click to see the relevant data 

Environmental Management System based on SHE Information System

The SHE Information System was designed to enable the methodical and efficient management of safety, health and environment. In 2020, we developed the Environment Management System to integrate all environmental management data as well as permits and administrative tasks. The SHE Information System that we used primarily to manage safety assessments and issues that require action was reorganized to include a wider range of environmental practices related to air and water quality, waste, soil and marine pollution, accident preparedness, hazardous chemicals, ISO environmental management, etc. Many relevant departments share data on and utilize the SHE Information System to increase data transparency and operational efficiency.



Eco-Friendly Communication Activities

Eco-friendly Campaigns

As part of our efforts to fulfill our environmental responsibilities, we conduct a variety of campaigns that raise awareness of the need for eco-friendly practices and encourage the participation of employees and customers. These include consistently sharing information on topics like climate change and other environmental issues.

2020 Campaigns	Description
 'Carbon Diet' for the Earth	Permanent, ongoing campaign on GS Caltex SNS channel. We donate saplings based on the number of employees who participated in certified carbon footprint reduction activities like recycling and cutting back on disposable products.(Donated 1,470 sapling as of 2020)
 'Camouflage Tactics' English Workbook	Workbooks with eco-friendly information about pollution, the environment, collective and individual measures in response to ecological issues, etc. Targeting millennials and Gen Z via English education contents.
 'Climatus College' Challenge	Open call to millennials and Gen Z for ideas on climate change measures, organized jointly with Climate Call Center. Campaign supported study on sustainable eating habits, eco-friendly fashion research, and Smart Farm activities using unused classrooms.
 Art Collaboration with Air-Ink ¹⁾	Supported Air-Ink paintings on the theme of 'Eco-friendliness and Circular Economy.' Hosted exhibition highlighting the virtuous cycle of energy resources at Yeulmaru in Jangdo. 1) Air-Ink : Proprietary brand of ink made of recycled ultrafine dust particulates after the removal of heavy metals and other pollutants.

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Safety and Health Management

ISSUE 3

Why is this topic important?

Companies are becoming progressively more mindful of their safety and health responsibilities amid growing stakeholder concerns on these issues. Along with safety in the workplace, the health and safety of employees are gaining greater importance due to stricter global health and safety regulations and the revision of the Occupational Safety and Health Act in Korea. This means that we need to build a systematic safety management system for sustainable growth and expand safety-related activities and trainings for **GS** Caltex and partners' employees.

What is our approach?

Based on **GS** Caltex's SHE Management Policy, we incorporate domestic/international issues and key regulations concerning safety and environment in our policies. In 2018, we established the SHE Information System which we use for the efficient management of relevant information. We continue to conduct programs such as risk assessment, emergency response training, and safety training to raise the level of safety culture for all **GS** Caltex and partners' employees.

2020 Achievements

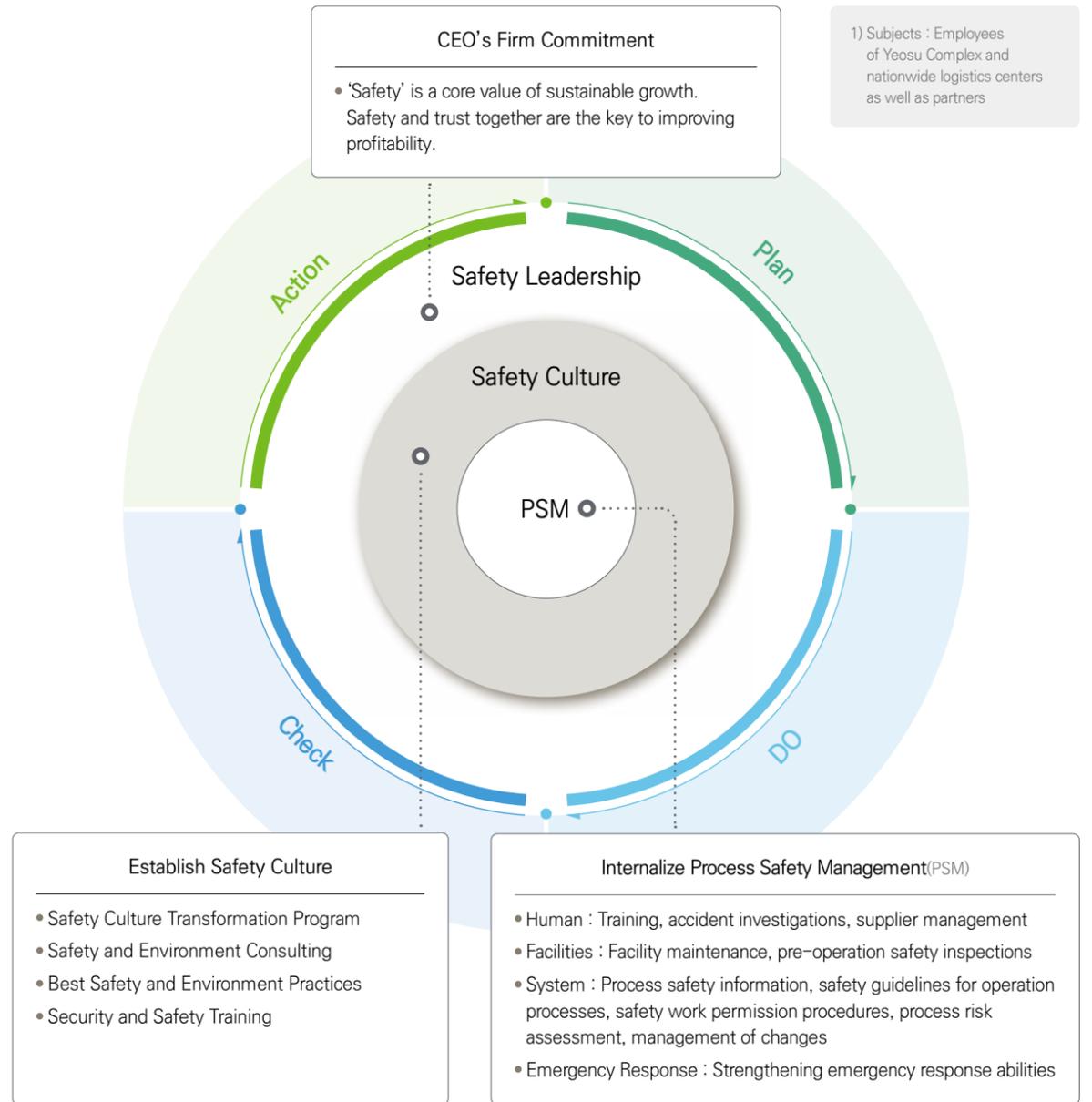
- Internalization of Safety Culture 
- COVID-19 Response 
- Workplace Safety Monitoring Using Drones 

VALUE NO.1
Energy & Chemical Partner

Establishment of Safety and Health System

Safety and Health Management System

We established the SHE Management Policy and occupational safety and health management measures for both **GS** Caltex and partners' employees. Activities include surveying the working environment, implementing a safety culture by sector, organized management system, and ensuring the safety of facilities. In doing so, we are establishing a culture of safety and internalizing process safety management.¹⁾ We also analyze scenarios to prevent industrial accidents. If one does occur, we take immediate action through our emergency response system.



Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Process Safety Risk Analysis System

GS Caltex performs step-by-step monitoring of all process facilities. Our risk assessment techniques include Hazard and Operability Study(HAZOP), Layer of Protection Analysis(LOPA), Safety Integrity Level(SIL), and Quantitative Risk Assessment(QRA). Our Job Risk Assessment involves conducting Job Safety Analysis(JSA) to secure a safe work environment first before proceeding with safety work plans. On site, we assign a safety supervisor in charge of workplace safety management. If the nature of the workchanges, we conduct JSA again and revise our Safety Work Plan, thus helping to prevent injuries or accidents.

New Project Safety Management

When undertaking a new project, we establish a Project Safety Management Plan(PSMP) that covers all phases of a project, including design, purchase, and construction. **GS** Caltex and partners' employees go through special project safety training, JSA program, Safety Training and Observation Program(STOP), and short-term worker management. These measures are focused on preventing the main workplace accidents(falling, dropping, jamming, etc.) that occur in construction.

Emergency Response System

We have an emergency response team that operates 24 hours a day to respond rapidly and effectively to cases such as industrial accidents, safety incidents, and natural disasters. Our emergency response manual has specific procedures for first response, declaration of emergency response, and closure. The Yeosu Complex consists of about 250 emergency and marine control personnel, including 24 emergency responders, first responders, and second responders.

We conduct emergency response training at least once a month, creating various scenarios that may occur during each process. There is emergency response training for unexpected situations as well. Our emergency respondents perform actual drills in a large-scale fire drill facility built inside the workplace in order to strengthen their emergency response abilities.

In particular, **GS** Caltex's Yeosu Complex is a designated national security facility that must meet various regulations' security standards. We also have a protection plan to rapidly respond to emergencies. In addition to conducting our own emergency response training, we hold a semiannual, comprehensive joint training with the local government, military, police, and coast guard .

SHE Information System

The SHE Information System analyzes SHE-related information in our database, allowing us to identify weaknesses and make improvements. For all issues that require actionable management, such as analyses and accident investigations, periodic reminders are sent to the relevant department so that they can faithfully implement improvements.

Enhanced Safety Environment

Life Saving Golden Rules

GS Caltex has Life Saving Golden Rules that all employees must follow in the workplace to protect their own safety. The goal is to preemptively prevent serious accidents and create a mature safety culture. The Life Saving Golden Rules are drawn from analyzing data on past workplace accidents involving the loss of human life and consists of six categories. Each work site uses these rules to devise and implement detailed instructions tailored to unique characteristics of their workplace.

Life Saving Golden Rules Categories

	Restrict access when working with heavy objects 1		Protect yourself against a fall when working in elevated places Prevent fall from heights 2		Cut off energy during maintenance 3
	Wear protective gear 4		Restrict access to dangerous areas 5		Ensure safety when working in enclosed spaces 6

Utilization of Drones

GS Caltex has been utilizing drones at the Yeosu Complex since 2015. In the past, it was hard to even approach flare stack, a 100+m chimney that emits flames, which made it very difficult to inspect while the flare stack was in operation. Maintenance and repair work had to be conducted by stacking numerous scaffolds when the exhaust fumes stopped during the factory-wide repair work period. Such measures carried high risks and expenses. Then in 2015, we pursued the use of a thermal imaging camera and drone with zoom functions and can now regularly conduct inspections safely even during operations.



 Watch video about drone use at the Yeosu Complex

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

Safety and Health Activities

Chemical Management Portal

GS Caltex operates a chemical management portal(CMP) to uphold laws regarding chemical substance management(Act on the Registration and Evaluation, etc. of Chemical Substances, Chemical Substances Control Act, Occupational Safety and Health Act, etc.) throughout the entire process of manufacturing, purchase, usage, and sales.

All manufactured and purchased chemical substances are subject to an internal review by professionals prior to any usage. Our database, which holds information about chemical substances and regulations, is updated regularly. This allows users to simultaneously find the composition of substances, identify hazardous chemicals, and check whether they meet chemical substance regulations. These are part of our efforts to ensure that our employees, partners, and customers safely handle chemical substances.

We upgrade our system regularly to reflect increasingly strict laws on chemical substances. For instance, the fully revised Occupational Safety and Health Act in 2021 was incorporated into our system, allowing **GS** Caltex to submit the Material Safety Data Sheet(MSDS) to the Ministry of Employment and Labor for approval prior to importing substances for manufacturing.

Learn more about the Chemical Management Portal(CMP)

Employee Health and Wellness Programs



Best Safety and Health Awareness Awards

All **GS** Caltex's logistics centers uphold the Safety Control of Dangerous Substances Act, Occupational Safety and Health Act, and related regulations. We also work closely with related institutions to maintain an accident-free workplace. As a result, in 2020, our Gunsan Terminal won the governor's award for its contribution to work site safety prevention while the Mokpo Terminal won the Fire Chief's Award for its contribution to fire prevention and the Busan Terminal won the Busan Mayor's Award for contribution to the development of firefighting administration.

Click to see the relevant data

Safety Programs to Internalize Safety Culture

Category	Description
Safety Culture Transformation Program	<ul style="list-style-type: none"> The Chief Safety Officer(CSO) holds a quarterly meeting through the company-wide Safety Leadership Committee(SLC) to discuss important issues for the safety culture implementation program and make decisions on how to internalize safety culture. Consider the Yeosu Complex and each work site's characteristics to implement a customized program for Safety Training and Observation Program(STOP), accident investigation, and operational discipline. Each work site evaluates key developments at monthly meetings held by the work site's safety leadership committee.
Safety & Environment Consulting	<ul style="list-style-type: none"> Receive safety environment consulting from outside professionals on a regular basis to monitor overall SHE management system, covering issues such as personnel, facility, system/technology, and emergency response. Each work site conducts safety evaluations using American Petroleum Institute(API) standards, the global standard for the petroleum and gas industry, every three years.
Security and Safety Training	<ul style="list-style-type: none"> All employees who access the Yeosu Complex, are required to complete security and safety training based on their work purpose. <ul style="list-style-type: none"> Visitors : Security and safety related basic compliance and restrictions On-site workers : On-site safe working conditions
Selection of Best Safety and Environment Practices	<ul style="list-style-type: none"> Select best safety and environment practices by GS Caltex and partners, particularly cases that can be applied company-wide and cases of improved practices. Selected cases are presented by the Safety and Environment Committee and awarded at the company's Foundation Day ceremony.

Interview with Best Safety and Environment Practices Awardee

“ I think safety is about 'interest.' Taking an interest in colleagues and our surroundings can help make a safer environment. ”



Jin-young Jang, Manager, Reliability 1 Team

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

Response to COVID-19

FOCUS

COVID-19 Response Activities for Employees



Amid the growing threat of COVID-19 in 2020, **GS** Caltex swiftly implemented measures to protect the safety and health of our employees and those of our partners. Our infectious disease emergency response team has been at work since Jan. 28, 2020, when Korea was still in the early stages of response. On Feb. 24, 2020, when the crisis alert level had gone up, we converted the team into an emergency response committee with the CSO in charge of operations. We continue to be proactive in our COVID-19 prevention and emergency response throughout our entire operations.

We also launched the COVID-19 Response Task Force of MFC Project at the end of January 2020 so that we could promptly respond to the risk of infectious diseases within Korea and in local communities. We strengthened prevention management and took measures to preempt the spread of COVID-19 for not only our own employees but also for all workers involved in the construction, including contractors' and partners' employees. As a result, we have had zero outbreaks on our work sites where over two million workers are present annually.



COVID-19 Emergency Response Committee's Main Activities



Monitor Domestic & International COVID-19 Cases and Overall Workplace Measures

- Hold periodic emergency response committee meetings to discuss and make necessary decisions regarding issues that affect employees, partners, and families.



Maintain Employees' Health through Establishment and Implementation of Company-wide Guidelines

- Establish 'GSC social distance guidelines' to outline specific instructions case by case.
- Use the company's SNS channel to communicate danger areas and main issues daily and encourage employees to voluntarily follow prevention guidelines.
- Support business operations to run efficiently, such as by providing operational guidelines for business trips and meetings.
- Support emotional wellbeing of those who tested positive or are in quarantine for COVID-19.



Secure Business Continuity in the Workplace

- Encourage work-from-home through remote support and flexible working hours and regularly disinfect the entire workplace.
- Utilize online platforms to conduct virtual briefings and meetings.
- In cases of cluster outbreaks, identify essential workers and promptly convert to work-from-home.
- Provide personal protective equipment, such as masks, to all employees, including employees of overseas work sites, affiliates, and long-term partners.
- Conduct emergency response training for each work site in case of possible outbreaks and amend issues for improvement.
- In case of confirmed cases at work sites or onboard ships, implement procedures to enable simultaneous onsite operation and effective preventive measures.



Social Contribution Activities in Response to COVID-19

COVID-19 has exacerbated economic, emotional, and social struggles throughout society, creating a greater need for social contribution activities. We continued to fulfill our role as a corporate citizen by converting many of our social contribution programs into contact-free activities and providing special support for COVID-19.

Main Social Contribution Activities

Taking Social Contribution Activities Online

- Provided children and youth with emotional support through online Maum Talk Talk classes.
- Held online training program for job seekers in support of young job-seekers preparing for recruitment.
- Increased offerings of **GS** Caltex Yeulmaru's online contact-free content : Naver TV live concerts, VR facility tours (Yeulmaru, Jangdo), VR exhibition.

Employees' Volunteer Work & Corporate Donations

- Conducted campaign and held employees' blood drive to help ease the sudden decrease in blood donors and supply due to COVID-19.
- Disinfected senior centers, community centers, and other public facilities in the Yeosu area free of charge.
- Converted the 'Love Sharing' soup kitchen program into delivery of lunch boxes and food supplies.
- Delivered donation of around KRW 200 million raised by **GS** Caltex employees to the Korea Disaster Relief Association in March 2020 to support hard-hit areas in the Daegu-Gyeongbuk region.

Overview

2020 Core Issue

ESG Management System

ISSUE 1 Road to Future

ISSUE 2 Eco-friendly Management

ISSUE 3 Safety and Health Management

FOCUS Response to COVID-19

UN SDGs Related Activities

Sustainability Achievements

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

UN SDGs Related Activities

UN SDGs Related Activities

GS Caltex wholeheartedly believes in and endorses the UN SDGs. We selected targets for GS Caltex to pursue among the 17 goals and actively link them to our sustainable management activities. We plan to steadily strengthen our participation in related activities to achieve these goals.

UN SDG Goals	GS Caltex Goals	2020 Achievements	
 <p>1 No Poverty</p>	<p>Support improvements to living standards and diet of our underprivileged neighbors through social contribution programs.</p>	<ul style="list-style-type: none"> Operated soup kitchens for elderly facing the threat of hunger 	<ul style="list-style-type: none"> Engaged 818 employees in volunteer work (based on contact-free activity standards, due to COVID-19)
 <p>2 Zero Hunger</p>			
 <p>4 Quality Education</p>	<p>Select those who need educational assistance and help them achieve healthy growth and development.</p>	<ul style="list-style-type: none"> Operated art therapy program for children(cumulative total : 20,463 children) Operated GS Caltex English Classes in Remote Islands Operated 'Industrial-Academic Course on Problem Solving' for regional college students(113 students) 	<ul style="list-style-type: none"> Offered program giving job-seekers emotional support and capability building guidance Held customized special lectures for regional students preparing for employment (40 students)
 <p>5 Gender Equality</p>	<p>Promote gender equality throughout all stages of business operations, with a particular focus on fostering an environment that brings out female employees' talents.</p>	<ul style="list-style-type: none"> Banned discrimination in hiring, evaluation, reward, and promotion 	<ul style="list-style-type: none"> Operated a women's leadership program
 <p>7 Affordable and Clean Energy</p>	<p>Develop and deliver eco-friendly energy technologies to contribute to the sustainability of the global environment.</p>	<ul style="list-style-type: none"> Expanded electric and hydrogen charging businesses 	<ul style="list-style-type: none"> Produced low carbon, high efficiency energy products
 <p>8 Decent Work and Economic Growth</p>	<p>Create high-quality jobs and secure a sustainable supply network through sound management and investment activities, thus contributing to economic growth.</p>	<ul style="list-style-type: none"> Built a sustainable supply network through ESG assessment process for partners 	<ul style="list-style-type: none"> Created jobs through the MFC project (2 million jobs annually during construction)
 <p>11 Sustainable Cities and Communities</p>	<p>As a member of the community, contribute to regional society's development by promoting communication and cooperation with regional stakeholders.</p>	<ul style="list-style-type: none"> Supported operation of GS Caltex's Yeulmaru, the arts and cultural complex in Yeosu 	<ul style="list-style-type: none"> Supported efforts('Go Together') to enable cooperation among small and medium-sized enterprises to increase their productivity Consulted regional small and medium-sized enterprises on how to increase organizational strengths(16 companies)
 <p>12 Responsible Consumption and Production</p>	<p>Conserve resources to not only produce eco-friendly, high-quality products but also to increase recycling.</p>	<ul style="list-style-type: none"> Produced recycled PP compound using recycled waste plastic Invested in environment : KRW 24.3 billion 	<ul style="list-style-type: none"> Achieved waste water recycling usage of 17.5% Achieved recycling waste products usage of 78.5%
 <p>13 Climate Action</p>	<p>Aggressively engage in efforts to combat climate change, such as reducing greenhouse gas emissions, throughout the entire value chain.</p>	<ul style="list-style-type: none"> Issued green bonds and invested in eco-friendly facilities 	<ul style="list-style-type: none"> Replaced 100% of production fuel at Yeosu Complex from low sulfur fuel oil(LSFO) with liquefied natural gas(LNG)

Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report



Safety First!



Sustainability Achievements



Overview

2020 Core Issue

Sustainability Achievements

Ethical Management

- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

Ethical Management

[Link to SDGs](#)



Ethical Management Practices

Business Conduct and Ethics Code

To strengthen our ethical management and encourage sustainable growth amid the rapidly changing corporate environment, our 1997 'GS Caltex Code of Ethics' was revised into 'Business Conduct and Ethics Code' and introduced to our employees in 2021. Our new code consolidates various policies and procedures and better reflects global trends like ESG. The Code is published as a handbook to enhance its usefulness for employees.

The amended regulations consist of major themes such as Human Rights, Conflict of Interest, Anti-Bribery/Internal Control & International Trade, Promotion of Stakeholder Value, Win-Win Partnership & Fair Trade, Safety/Health/Environment, and Data Privacy & Information Security. GS Caltex plans to evaluate the validity of the code regularly to maintain accuracy and applicability.



2021 Business Conduct and Ethics Code

Communication Channels for Ethical Management

GS Caltex communicates its compliance activities with all employees and stakeholders through the ethical management website, ethical management system, and compliance newsletter on the company's internal SNS.

We also operate an ethical management hotline for employees and stakeholders to report and receive consultations about suspected violations of domestic/international laws and regulations or ethical dilemmas that can occur during daily operations.

Ethical Management Website
<http://ethics.gscaltex.com>

Ethical Management Hotline
ethics@gscaltex.com, 02)2005-6011

Principles of Ethical Management Hotline

We ensure strict anonymity of whistleblowers who report through the hotline and do not tolerate any form of retaliation for reports which were made in good faith. The hotline registers complaints, reports of fraud, and petitions. The relevant department verifies and reviews the reported information, then informs the results to the whistleblower if requested.

Any unethical behavior that may have a negative impact on business operations can be reported. This includes inappropriate work processing, unfair trade, demand and payment of bribery(monetary or entertainment), inappropriate transaction with interested party, violation of human rights, and violation of our 'Business Conduct and Ethics Code.'

Promotion of Ethical Management Culture

To raise awareness and promote internalization of ethics, we ask our employees to sign a compliance undertakings every year. Our CEO delivers a message calling for commitment to ethical management prior to the holidays to employees and stakeholders. Other various methods we use to raise awareness of ethical management practices include sharing ethical management issues via our internal SNS.

Overview

2020 Core Issue

Sustainability Achievements

Ethical Management

Supply Chain Management

Customer Satisfaction Management

Human Rights Management

Corporate Governance

Information Security

Risk Management

Social Contribution

Key Data & Performance

Appendix

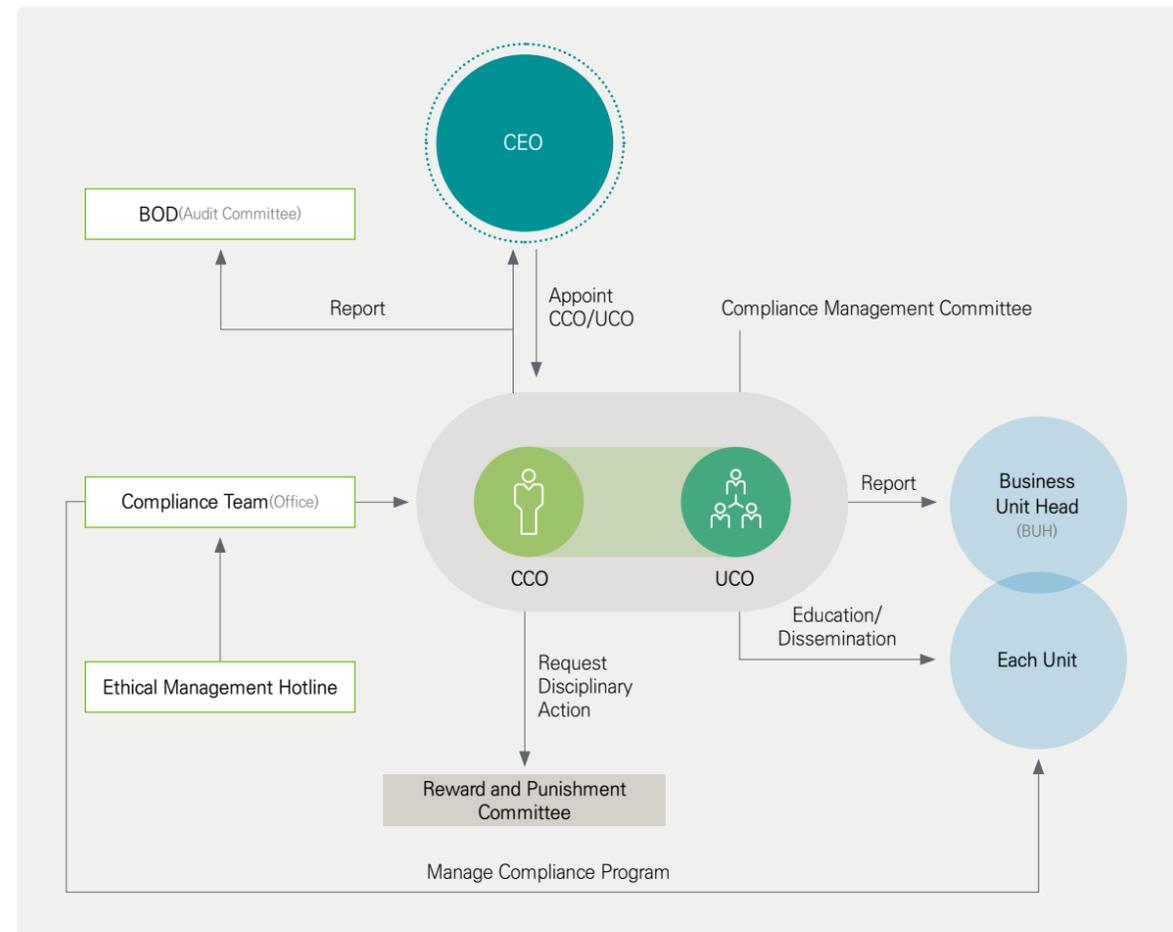
VALUE NO.1
Energy & Chemical Partner

Compliance Management

Compliance Management Operational Organization and Report System

For the systematic implementation of compliance practices, **GS** Caltex has a Corporate Compliance Officer(CCO) who is in charge of company-wide compliance programs and Unit Compliance Officer(UCO) for each division, subsidiary, and organization.

Every half-year, the CCO and UCO share company-wide compliance issues and activities at the meeting of the Compliance Management Committee. The meeting also serves as an opportunity to evaluate the current operational status of the compliance program. Such compliance activities are transparently reported to the Board of Directors through our Audit Committee. Our Compliance Team, launched in January 2020, supports the CCO to plan and execute **GS** Caltex's compliance program.



After establishing **GS** Caltex's compliance management system, including compliance policy, risk management, monitoring, and effectiveness evaluation, we applied for a Compliance Management System(ISO 37301) certification in 2021. While our application goes through the review process, we are continuing our efforts to secure a compliance system that meets global standards.

Compliance Program

GS Caltex's compliance program consists of the 'Business Conduct and Ethics Code' as well as various other internal policies and procedures, compliance training and promotion programs, the ethical management hotline, report system, investigations of compliance violations, monitoring and effectiveness evaluations, and more.

All employees must participate in the Corporate Compliance Program(CCP) annually. This includes all domestic and overseas affiliates as well. CCP training consists of four major themes : 'Compliance Program & Ethical Management,' 'Fair Trade,' 'Information Security,' and 'SHE Management Activities.' The program is expected to be revamped in 2021 following overall revisions to our 'Business Conduct and Ethics Code.'

Fair Trade Compliance Activities

GS Caltex considers fair trade an essential part of our business operations. We run the Anti-trust Compliance Program(ACP) which covers topics such as fair trade related regulations, training, and monitoring to reinforce fair trade practices for all employees and to enhance our fair trade corporate culture. We also appoint an Anti-trust Compliance Officer(ACO) and conduct fair trade-related training to improve employees' awareness.

To ensure that employees engage in fair trade, we continuously communicate with related government agencies such as the Fair Trade Commission. We monitor any enactments or amendments to fair trade laws and regulations, including policy directions. All results are communicated to the company so that employees can follow fair trade related laws and regulations. In addition, we provide employees with guidelines to practice fair trade through our 'Fair Trade Business Conduct Regulations.' We also provide fair trade related consulting, regular training, and issue-specific training.

Our internal transaction review program handles any internal transaction issues that occur with affiliates to ensure fair trade. Prior to the transaction, relevant departments review relevant laws and regulations such as those that govern fair trade, commercial laws, and tax laws. They then notify the business department of the results of the review. The business department then takes follow-up actions, such as decisions on continuing or changing the transaction.

In addition, **GS** Caltex has a subcontractor transaction review program to ensure proper transaction of our subcontracts. If issues arise, relevant departments immediately review whether or not the transaction abides by the applicable laws and regulations.

Click to see the relevant data

Overview

2020 Core Issue

Sustainability Achievements

Ethical Management

Supply Chain Management

Customer Satisfaction Management

Human Rights Management

Corporate Governance

Information Security

Risk Management

Social Contribution

Key Data & Performance

Appendix

Supply Chain Management

[Link to SDGs](#)

8 Decent Work and Economic Growth



11 Sustainable Cities and Communities



Shared Growth with Partners

[Learn more about 'Go Together'](#)

Basic Policy of Shared Growth

GS Caltex is committed to encouraging our partners' sustainable development through various management support programs that cover financing, technical development, and training. Under our shared growth policy based on fairness, stability, and feasibility, we comply with rules dedicated to promoting fair business practices, maintaining sound and ethical business partnerships, and improving our partners' capacity and productivity.

Support for Shared Growth Program

Through our 'Go Together' program, we provide support so our SME partners can secure the necessary technology and become more competitive. We match them with researchers from national research institutes and help financing for R&D. In the product development stage, we provide business information, work site information, and technical data. Prototypes can be tested during actual manufacturing processes, enabling the companies to develop the technologies they want. Technologies developed under this program are fully owned by the small and medium-sized enterprises, and **GS** Caltex does not demand any transactional conditions in exchange for our support. Our financial assistance program plays an active role in supporting our partners' financial operations. We work with financial firms to create and operate a shared growth fund for partners with whom we have a shared growth contract. In 2020, this allowed us to support shared growth, low-interest loans worth KRW 47.7 billion to 75 partners.

Support for Supply Network Education and Training

GS Caltex provides various educational and training programs and meetings for our partners to help increase their competitiveness and ensure their safety. Such meetings are held for the Capital/Southeastern/Southwestern regions and for facility partners, tank lorry shipment partners, and shippers, etc. In 2020, meetings were held online due to COVID-19.

Category	Description
Safety education/training	<ul style="list-style-type: none"> For maintenance partners at our Yeosu Complex to enhance their safety and operational capacity
SHE strengthening program during TA period	<ul style="list-style-type: none"> Special safety education for task manager, fire administrator, and external observers TA safety workshop for safety supervisor and safety manager
Tank vessels safety training and inspection	<ul style="list-style-type: none"> Twice a year for stations and tank vessels through a professional safety management company (in 2020, only conducted safety assessments of individual vessels prior to sailing)
Coastal shipping vessel safety education & inspection	<ul style="list-style-type: none"> Four times a year by a professional safety management company
Safety training for logistics centers nationwide	<ul style="list-style-type: none"> Total of 1,728 classes on accident prevention, safety awareness, customer satisfaction, etc.
Partners' ESG Education	<ul style="list-style-type: none"> Annual training on ESG policy direction and sustainable supply chain management for purchasers and partners to enhance partners' ESG capacity

Supply Chain Management System

GS Caltex systematically manages its supply chain incorporating factors such as our partners' product quality, supply capacity, and financial situation. In consideration of the importance of ESG, we also strive to strike a balance by assessing them on non-financial factors.

We have a Code of Conduct for **GS** Caltex Partners which encourages our partners to protect their employees' human rights, create a safe work environment, practice eco-friendly workplace management, and uphold corporate ethical standards. Starting in early 2020, our contracts with partners include ESG related clauses concerning environment, safety, labor, and other areas of corporate social responsibilities for shared growth. We also request that our partners comply with the Code and ask for their cooperation on ESG assessments and onsite inspections.

For this purpose, we created educational videos that discuss ESG, the importance of supply chain management, and domestic and international trends to better educate our partners and purchasers. In 2021, specific education and training sessions were held online due to COVID-19.

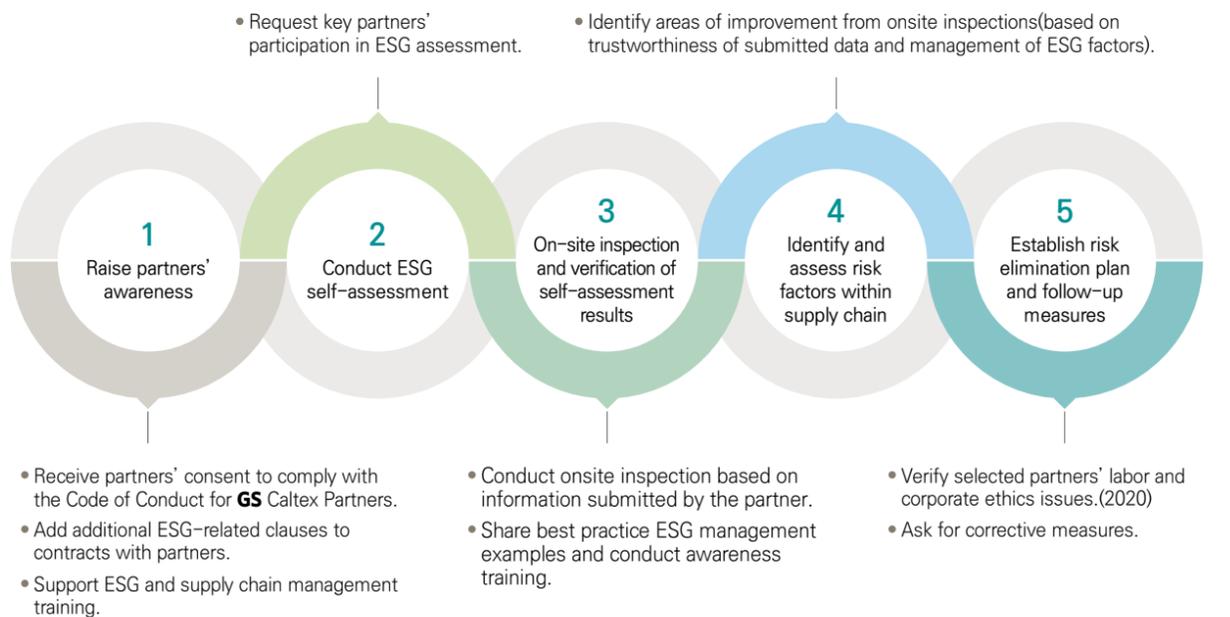
[Watch video about ESG education](#)

Supply Chain ESG Assessment

In 2020, we selected 107 core partners based on internal standards and conducted ESG assessments. These partners first completed online self-assessments on the Code of Conduct for **GS** Caltex Partners (employees' human rights, safe work environment, eco-friendly workplace management, and corporate ethical standards). We identified high risk partners based on these results and carried out onsite inspections through a third-party audit. The process allowed partners to receive ESG training and consulting on how to improve risk factors. Onsite inspections categorized risks into different levels and suggestions for improvements were made accordingly as we provide continuous support to improve our partners' ESG capabilities. In 2021, we plan to expand the scope of our supply chain ESG assessment by including more partners.

Supply Chain ESG Assessment Process

[Click to see the relevant data](#)



Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management**
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

Customer Satisfaction Management

Link to SDGs

8 Decent Work and Economic Growth  7 Clean Energy  12 Responsible Consumption and Production 

Customer Satisfaction Management

Customer Safety Management

GS Caltex is committed to identifying the hazards and risks of chemicals to protect customers' health and the environment. Recognizing the special characteristics of petroleum products that can have various effects on safety, environment, and performance, we implemented the regulations of the European Union – Registration, Evaluation, Authorisation and Restriction of Chemicals(EU-REACH) through a preemptive and systematic plan.

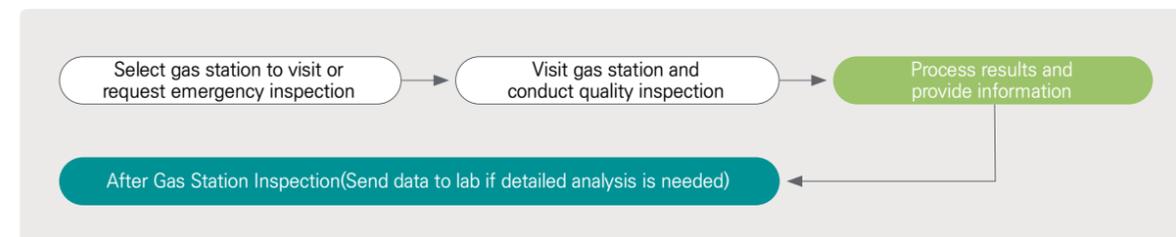
Starting with pre-registration in 2008, we completed EU-REACH registration of more than one ton of chemical substances exported to Europe. As a result, both customers in Europe and customers who export to Europe can be assured the safety of **GS** Caltex's chemical products. We also try to comply with domestic chemical laws and regulations, including the Act on the Registration and Evaluation, etc. of Chemical Substances.

Value Chain Quality Control System

To provide customers with high-quality petroleum products, we produce them at facilities that have an ISO9001 quality management system certification, which is stricter than legally required standards. We conduct quality inspections for products departing factories, arriving at logistics centers, and requiring long-term storage. We also comply with quality inspections and environment and safety procedures in accordance with related laws and our internal regulations when products are shipped to or stored in a logistics center from our factories.

Kixx Quality Service Vehicle

In 2007, **GS** Caltex launched a vehicle equipped with systems that can detect defective and illegal petroleum products, a first in the industry. The vehicle performs on-site sampling and conducts quality inspection at **GS** Caltex stations. We also run a bus that promptly responds to complaints and emergency situations. Since 2013, we have been providing LPG Quality Service Vehicles at LPG stations as well. We aim to fully comply with legal requirements to prevent any violations at LPG stations when legal quality standard levels are in flux.



Customer Satisfaction

Customer Centered Management

We operate a Customer Service Center(CSC), an integrated customer service channel to promptly handle customer complaints and inquiries. We invest in fostering professional service representatives and improve our call service infrastructure so that we can handle complaints faster and enhance satisfaction. Complaints collected through CSC are categorized and analyzed by type, and then used to establish an improvement plan and to prevent recurrence. We follow up by monitoring the implementation process to ensure successful execution.

GS Caltex also runs a professional education organization called Star Service Team to enhance customer satisfaction and provide standardized services. Established in 1997, Star Service Team has faithfully provided onsite service training and acted as the Voice of Customers(VOC) channel, delivering onsite feedback to relevant departments. As a result, **GS** Caltex has been named the number one gas service station for 12 consecutive years by the National Customer Satisfaction Index(NCSI).

Customer Communication Channel

GS&POINT is an integrated membership program launched by the **GS** Group, providing cultural membership benefits that every customer can enjoy. In 2020, we continued to communicate with customers through a variety of promotions and events, including the Over The Top(OTT) service which led the 'contact-free' trend.

Learn more about **GS&POINT** 

In order to share our corporate philosophy with customers, we operate various digital communication channels under our brand slogan, 'I am your Energy.' Customers can learn about our changes as an energy company as well as access information about energy through various digital channels such as **blogs, Facebook, Instagram, Youtube, and Twitter**. Amid the difficulties caused by the outbreak of COVID-19, we are delivering a message of 'We are All Someone's Energy' in connection with our brand slogan and participating in events like 'Helping Rural Farm Campaign' and 'Thanks to You Challenge' to spread positive energy in society.

Go to the SNS channel >> 

Launch of Engine Oil for Hybrid and Electric Vehicles

To better meet customers' various demands as we enter the age of eco-friendly vehicles, **GS** Caltex developed an EV-friendly lubricant oil. Using that as a starting point, in October 2020, we launched Kixx HYBRID, an engine oil specifically for hybrid cars, the first one developed in the domestic market among domestic refiners. Export of this product started in December 2020 as well. We have completed our development for EV lubricant oil, and are also developing other products utilizing eco-friendly elements, such as biodegradable engine oil.

Launch of Kixx Hybrid Engine Oil



Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management**
- Corporate Governance
- Information Security
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

Human Rights Management

[Link to SDGs](#)



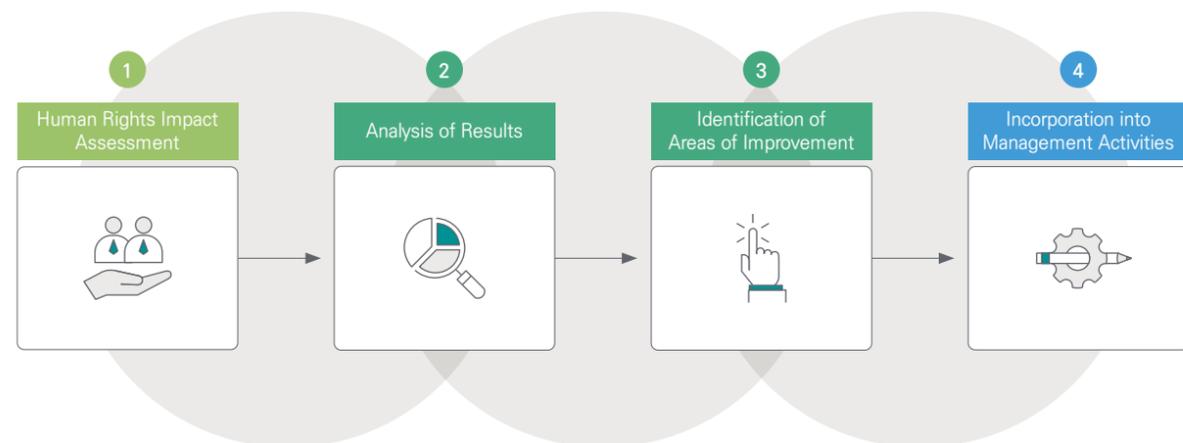
Human Rights Management System

Human Rights Management Policy

GS Caltex recognizes the importance of human rights management. Based on the basic principle of respect for human rights, we established human right management policy, Code of Conduct for **GS** Caltex Partners, and stakeholder value policy to ensure human rights are pursued by all company stakeholders. We support international standards and norms, including the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights. In particular, we clearly state that workplace or sexual harassment is strictly prohibited in our business operations manual and Code of Conduct. We have a separate section addressing how to prevent harassment with guidelines for behavior our employees.

Human Rights Impact Assessment

GS Caltex conducts annual human rights impact assessments to prevent violations that may occur during the course of daily business operations. Our assessments are based on OECD's Due Diligence Guidance for Responsible Business Conduct and the National Human Rights Commission of Korea's Guidelines for Human Rights Management. All employees participate in a groupware survey that assesses the effect on nine categories of human rights, including anti-discrimination, forced labor and child labor, safe workplace environment, freedom of assembly, and privacy. Results are analyzed by department and age. Recommendations on improvements are integrated into management activities. We plan to continue analyzing risks to human rights that can arise from each work site on a regular basis.



Commitment to Creating a Culture of Respect for Human Rights

Our employees take legally required classes on sexual harassment and disability every year to raise their awareness and respect for human rights. As of July 2019, we defined what it means to prohibit workplace harassment and provided guidelines. Our groupware's main page has a banner that allows employees to report and seek advice on workplace or sexual harassment. We also operate a report portal for employees to safely report workplace and sexual harassment cases.



※ The shared telephone number directs callers to different extensions based on the type of harassment.

Respect for Diversity

In March 2020, we opened a café in our Yeosu Complex Project Center Building(PCB) to help create jobs for the disabled and help them gain independence.

In November 2020, we opened an additional café at the Yeosu Complex on the second floor of the No.1 Factory's welfare center. In addition to creating jobs, the café acts as a platform for cooperation between the abled and disabled. We also work with employees to raise funds to help the disabled in the area, thus creating a giving culture of donations.

In December 2020, we started Hanul Love Co. Ltd., a separate business subsidiary for the disabled, as part of our continuing efforts to support a culture in which the disabled and abled work together.



Hanul Café,
Yeosu Complex's Cafe

Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management**
- Corporate Governance
- Information Security
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

Innovations in Ways of Working

Open Innovation in the Workplace

GS Caltex's Innovation Catalyst Program launched in 2020. It encourages positive changes in the company based on employees' workplace experiences and their recognition of problem areas.

The program's name derives from the concept of employees acting as a 'catalyst' to understand and pioneer change through open innovation. We create a community for employees to voluntarily identify issues and provide them with opportunities to study and experience various topics related to innovation. We also expanded our network of affiliates who share similar concerns to encourage employees to voice their opinions and find members so they can solve problems together. **GS** Group employees have used this program to create system prototypes to make decisions related to gas stations, build a shared address site for all subsidiaries, and more.

Furthermore, we are transforming our value chain to foster opportunities for improvement and achieve concrete results while striving to instill a spirit of boldness and cooperation in all employees.

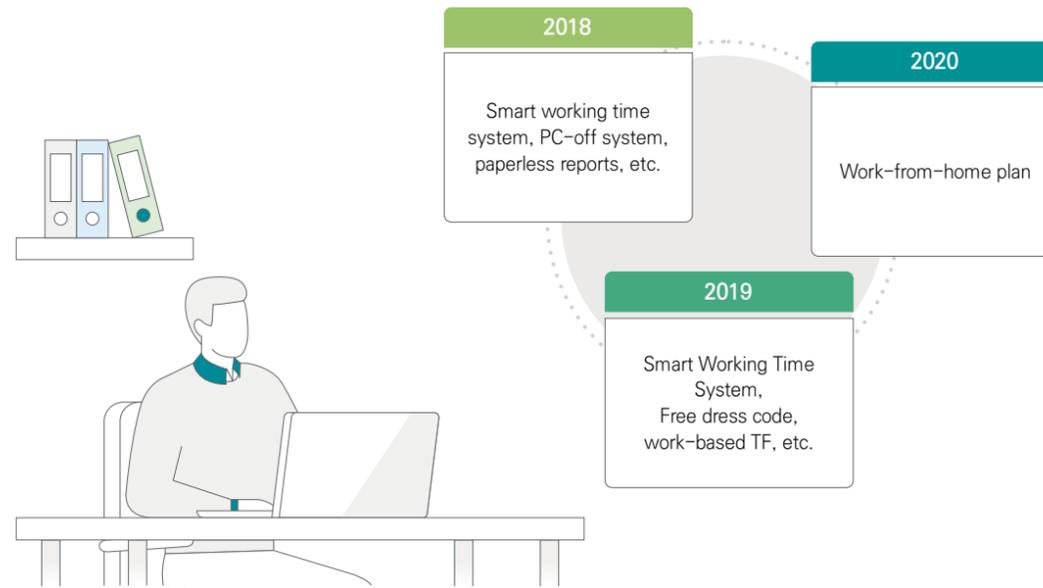
Change in Job Ranking System

In order to create a more horizontal corporate culture for employees to communicate freely, in March 2019, **GS** Caltex changed its job ranking system (managing director, executive director, vice president, president) to a job title system (head of department, head of office, head of division). In March 2020, our five-level job system (associate, assistant manager, manager, deputy general manager, general manager) was simplified into three levels (associate, associate manager, manager). Additionally, in 2021, we eliminated promotion points and predetermined percentages for promotions based on job level.

Creation of Working Environment Based on Autonomy and Responsibility

We incorporate ways to create a flexible workplace so employees can perform to the best of their ability. Our hope is that this will encourage employees to take greater responsibility and have greater concentration, thus generating higher productivity.

Amid COVID-19, we incorporated a work-from-home option to protect employees' health. To make work-from-home productive, we set guidelines and each team established ground rules. Employees were also given collaboration tools as we supported them in adapting to their new working environment.



Rational Recruitment and Better Communications

Fair Recruitment Process

GS Caltex conducts public recruitment to hire talented people best fit for the job. We do not discriminate based on gender, academic background, age, major, or region. To add to the fairness, we simplified the job application process and excluded foreign language scores to focus on job skills rather than conventional metrics used for evaluating resumes.

In addition to regular recruitment, we conduct both general and industry-academic internships as well as a variety of other programs. We cooperate with universities to provide permanent programs, such as the chemical engineering leadership program, chemical engineering mentoring program, and industry-academic work experience programs, as a means of sharing knowledge and know-how with students.

Active Use of Various Communication Channels

GS Caltex uses various channels to promote communication and exchanges between employees and to share management's policies and directions. In 2019, we held a town hall meeting to discuss the status of our management and broadcasted it live. In 2020, the new year's kick off meeting and discussion about the status of our management was held online and shared with all employees. Our Workplace social media account also communicates the company's various news and information, directly and indirectly.

In addition, employees who attended lectures on various topics through the Leader Insight Forum (LIF) or the 'Jium' Academy are given the chance to share their opinions or have Q&A sessions. Employees can also freely propose ideas on any topic on 'Idea Exchange,' our anonymous message board. In 2020, 100 ideas were submitted, of which 48 were reviewed and implemented.



Cooperative Labor-Management Relations

GS Caltex maintains a good relationship with our labor union based on shared growth and cooperation. Under our vision of creating cooperative labor-management relations, we established the Declaration and Charter for Harmonious Labor-Management Relations in 2005 to introduce more concrete ideas with high viability for labor-management relations. Using this as a basis, we have pursued innovation in the labor-management workplace and engaged in various organizational culture activities together. Labor and management are also active in joint volunteer work for local communities.

We also engage in wage negotiations and pursue a collective agreement for labor's working conditions. We hold labor-management meetings and run TFs to discuss various issues and form consensus. In addition, we have the Occupational Safety and Health Committee to ensure the safety and health of our workers.

Overview

2020 Core Issue

Sustainability Achievements

Ethical Management

Supply Chain Management

Customer Satisfaction Management

Human Rights Management

Corporate Governance

Information Security

Risk Management

Social Contribution

Key Data & Performance

Appendix

Fair Performance Evaluation and Compensation

Performance Evaluation Principles and Policies

GS Caltex seeks to confer compensation based on fair performance evaluations and results while strictly prohibiting gender-based discrimination in wages, evaluations, or promotions. When setting annual goals, we ensure individual goals are aligned with corporate goals through an interview process. During the year, evaluators review the progress and employees have the chance to ask for support. At the year's end, evaluations assess key issues such as main achievements, process, and contributions. Employees also receive feedback on the results.

To strengthen fairness, evaluation results are used only as standards for compensation and not linked to promotions and job assignment. This is to prevent evaluations from being influenced by factors other than job performance and achievements. For specific projects, direct supervisors and project managers may participate in evaluations to boost performance and encourage cooperation.

Performance Evaluation

The annual year-end evaluation focuses on key quantitative and qualitative achievements. To ensure fairness and acceptance, evaluators hold interviews with the evaluatees. Employees can also raise objections through a designated system.

In 2021, we simplified evaluations from seven levels(S·A+·A·B+·B·C·D) to four(Outstanding·Exceeds Expectations·Meets Expectations·Needs Improvement) to reflect performance expectations. Evaluators also have the freedom to rank based on performance without needing to follow a mandatory ranking quota by percentages for each level. To strengthen the fairness of evaluations, we provide a checklist of guidelines with objective evaluation standards. In addition, we conduct regular training for evaluators to increase their awareness and competency.

To raise job satisfaction and motivate our workers, we link our compensation system with performance. High performers receive additional benefits and are rewarded for their individual performance results, contributions, and value creation.

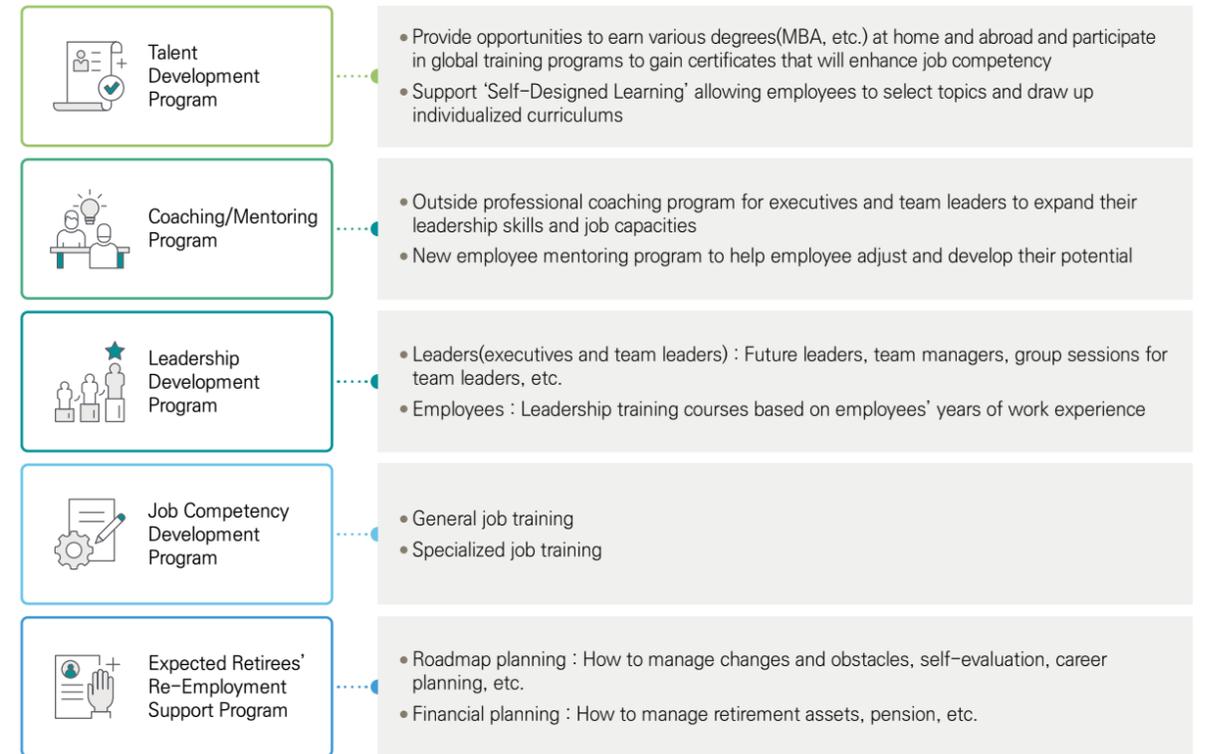
Peer-Review Policy

Peer-reviews strengthen cooperation among employees. In 2020, full-time employees and professional researchers with five-plus years of experience participated in anonymous evaluations of evaluatees' strengths and weaknesses based on our corporate values of trust, flexibility, challenge, and excellence.

Immediate superiors gave feedback on peer-review results in terms of strengths and weaknesses rather than rankings or numbers. The results are being used as reference for future job positions. We plan to expand our peer-review to all manager-level employees in 2021.

Human Resource Development Program

GS Caltex's systematic training program reflects the diverse needs of employees in different phases of their life cycle. Thus we provide programs based on years of experience, on-the-job training for specific tasks, coaching/mentoring, experience-based programs, and external degree programs. Outstanding personnel are given the opportunity to pursue short and long-term training as well.



Welfare System

Learn more about **GS** Caltex's welfare program

Welfare Program

GS Caltex's welfare system is designed to help our employees stay focused on their jobs with pride and emotional stability. We offer various programs to support housing needs, healthcare, parental responsibilities, life stability, self-development, and leisure activities.

We also help to ease worries about having children and childcare costs in an era of low birth rates. Measures include support for infertility treatments and days off to receive said treatment, reduced working hours, monetary gifts for the birth of children, support for children's educational and medical expenses, and childcare centers at the **GS** Caltex headquarters and work sites. We also provide a nursing room as well as policies like shorter working hours and days off for childcare, maternity/paternity leaves, etc.

We encourage employees to take two weeks off for their summer holiday. We also offer employees and families access to condominium units, resorts, and human resources development facilities nationwide as part of our efforts to help employees maintain a work life balance.

Overview

2020 Core Issue

Sustainability Achievements

Ethical Management

Supply Chain Management

Customer Satisfaction Management

Human Rights Management

Corporate Governance

Information Security

Risk Management

Social Contribution

Key Data & Performance

Appendix

Corporate Governance

Composition of the Board of Directors

Principles

The candidates for the **GS** Caltex Board of Directors(BOD) are nominated by the Korean shareholder, **GS**, and U.S. shareholder, Chevron, based on their expertise in business and risk management. They are appointed every year at the shareholders' meeting and their term of office expires each year at the conclusion of the first ordinary general meeting of shareholders after their appointment.

As of June 2021, the Board is comprised of ten directors including one inside director, two representative directors, and seven non-standing directors. There are no outside directors. The Chairman, Mr. Jin-Soo Huh, was appointed by the Board based on his in-depth understanding of the business.

The operations of the BOD are based on Article 36(Meetings of Directors) and Article 37(Board Resolutions) of the company's Articles of Incorporation. The remuneration of directors follows the internal policies of the directors' respective companies and no additional compensation is made for **GS** Caltex BOD-related activities.

Board Members

Classification	Name	Current Rank and Position	Reasons for Appointment
Inside Director	Jin-Soo Huh	Chairman, GS Caltex Corporation	Based on his experience as the CEO, Mr. Huh contributes to the success of the Board with his leadership and insights.
Representative Director	Saehong Hur	President & CEO, GS Caltex Corporation	Based on his experience as the CEO of a key affiliate, Mr. Hur contributes to the success of the Board and the company with his in-depth knowledge and expertise of the business.
	Doohee Lee	Executive Vice President, Head of Yeosu Complex, GS Caltex Corporation	Based on his long career with the company and his expertise, Mr. Lee contributes to the success of the Board and the company.
Non-standing Director	Soon-Ky Hong	President & CEO, GS Holdings Corporation	Based on his experience as the CEO of a key affiliate and his expertise, Mr. Hong contributes to the success of the Board.
	Yongsoo Huh	President & CEO, GS Energy Corporation	Based on his experience as the CEO of a key affiliate and his expertise, Mr.Huh contributes to the success of the Board.
	Brant T. Fish	President, International Fuels & Lubricants, Chevron Corporation	As the president of Chevron International Fuels & Lubricants, Mr. Fish contributes to the success of the Board with his experience and expertise.
	Navin K. Mahajan	Vice President & Treasurer, Chevron Corporation	Mr. Mahajan contributes to the success of the Board as the Chevron Vice President & Treasurer.
	Andrei F.B. Behdjet	Vice President & General Counsel Downstream, Chemicals & Midstream, Chevron Corporation	Mr. Behdjet contributes to the success of the Board as the General Counsel of Chevron Downstream, Chemicals & Midstream.
	William L. Stone	CEO, Singapore Refining Company, Singapore	As the CEO of SRC, Mr. Stone contributes to the success of the Board with his expertise in the refining business.
	Christopher E. Jablonski	Country Chairman, Chevron Korea, Chevron Corporation	As the Chevron resident director in Korea, Mr. Jablonski contributes to the success of the Board and enables effective communications.

Operations of the Board of Directors

Activities

As stated in the Articles of Incorporation, BOD resolutions require an affirmative vote of more than two-thirds of all registered directors. To ensure the independent operations of the Board and avoid conflicts of interest, members with a conflict of interest in relation to a specific agenda are prohibited from exercising voting rights on that particular agenda.

In 2020, a total of eight Board meetings were held to review and vote on key issues such as the 2021 business plan and the establishment of the Moscow branch office in Russia. Also discussed were ESG-related issues including compliance and safety. All meetings were held virtually in an effort to mitigate the spread of COVID-19. The Board Support Office proposes BOD agendas through active communications with the relevant parties. The Board members are provided with meeting materials in advance so they have ample time to review the agendas.

Committees

The Accountability Committee, Audit Committee(not an Audit Committee under the commercial code), and LNG Procurement Management Committee are organized and operated within the BOD. The independence of each committee is ensured to allow greater accountability and transparency in the performance of its responsibilities.

Committee	Purpose & Role	Composition	2020 Meetings	1H 2021 Meetings
Accountability Committee	Review and discussion of governance-related issues	1 Inside director 1 Representative director 1 Non-standing director	1	1
Audit Committee	Review and discussion of financial reports and audit issues	4 Non-standing directors	2	1
LNG Procurement Management Committee	Review and discussion of LNG procurement-related issues	1 Representative director 1 Non-standing director	-	2

Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security**
- Risk Management
- Social Contribution

Key Data & Performance

Appendix

Information Security

Information Security System and Activities

Information Security Organization

The Information Security Committee which comprises the Chief Information Security Officer(CISO), chairperson, and executives from each division acts as the highest decision-making body on issues pertaining to information security. The committee discusses investment activities and a wide range of issues aimed at improving company-wide information security, such as personal information, cyber attacks and employee awareness. Moreover, **GS** Caltex has set up systematic information security policies to safeguard against various threats, protect the company's tangible and intangible assets including customer information, and maintain business credibility. The company also operates the information security management system based on domestic and international laws and standards.

Customer Information Protection System

GS Caltex was the first in the industry to obtain the government designated Personal Information Management System(PIMS) certification in 2013. The certificate was later integrated into a Personal Information & Information Security Management System(ISMS-P) for more effective and secure management of personal information. As such, we undergo rigorous reviews every year by authorities to maintain the ISMS-P certification.

To protect our customers' personal information and ensure security, important personal data is stored and transmitted in an encrypted form. Personal data storage is possible only through a separate system to which the minimum number of personnel has access. Additionally, any access to personal data is controlled through a system that monitors access history and abnormalities. In order to prevent any misuse or violation of laws, all teams and third parties with access to personal information are subjected to a security audit every year.

Moreover, **GS** Caltex takes its legal obligations to protect personal information seriously by faithfully complying with the EU's General Data Protection Regulation(GDPR) as well as domestic rules and regulations. Our customers also receive notification of their personal information processing status more than once a year to guarantee their rights to make decisions about their own personal data.



Certification Scope	GS&POINT Service, GS Caltex Bonus Card Service
Validity Date	June 10, 2020 ~ June 9, 2023

Internal Security Measures

At **GS** Caltex, a designated team of cybersecurity experts examines constantly occurring domestic and international security issues. Using an independent risk assessment methodology, we conduct vulnerability inspections and mock hackings to identify and prevent risks to our IT systems as part of our efforts to upgrade technical security. We also monitor and conduct log analysis for any network anomalies such as unauthorized access through various security solutions. For greater physical security, we hold infiltration tests and unannounced security inspections on a regular basis to check the level of risk management regarding information security.

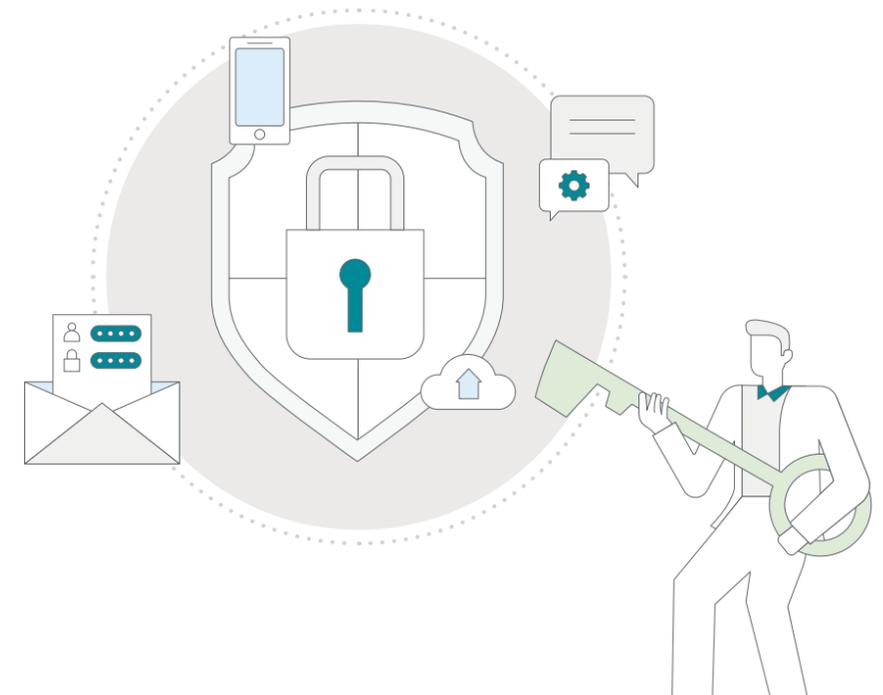
Information Security Training

To prevent security breaches, everyone at **GS** Caltex receives annual training on the topic of information security and personal information protection. We use a variety of training methods, including programs with simulated scenarios that reflect the latest concerns, like malicious mail. We also offer security seminars and run awareness campaigns. **GS** Caltex subsidiaries also receive information security assessments and employee training to maintain the overall level of information security across the entire company.

In particular, everyone entering the **GS** Caltex Yeosu Complex, a designated national security facility, is required to complete a security and safety training program according to their purpose of entry. Those visiting the factory receive basic training on safety compliance and restrictions while those who need to work at the site receive onsite safety training.

Access Control and Visitor Management System

The Access Control System restricts and keeps track of all visitors to the **GS** Caltex Yeosu Complex. The entire Complex is classified into controlled and restricted zones barring unauthorized entry. Moreover, visitors need to obtain employee approval through a visitor management system before visiting **GS** Caltex headquarters and Yeosu Complex.



Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security

Risk Management

Social Contribution

Key Data & Performance

Appendix

Risk Management

Business and Financial Risk Management

Risk Management Governance

We have designated the Crude Oil RM Team, Product RM Team, and Middle Office Team to the Risk Management Organization ensure a fast and systematic response to the changing business environment. These teams monitor and analyze risks in our internal and external operations, and report the results.

We hold a Risk Management Committee meeting, comprising the CEO and executive officers on a quarterly basis as part of company-wide risk management. Through these meetings, we review major risks and plan our mitigation strategies.

Risk Management Committee Status

Classification	Attendance and Main Activities
Chairman	CEO
Members	General Manager of : Chemical, Supply & Trading, Finance, Lubricants, Strategic Planning, GS Caltex Singapore Pte. Ltd.
Attending Executives	Heads of Aromatics Business, Crude Oil, Performance Improvement, Treasury
Secretary/Secretariat	Head of Accounting/Middle Office Team
Activities	Provide guidelines on risk management and review performance
Meeting Frequency	Four times a year(quarterly basis)

Risk Management Governance



Learn more about the Risk Management Teams

Financial Risk Management

Our focus has been on maintaining financial stability to stay agile in an increasingly volatile business and industrial environment. We continued to keep our borrowing at an optimal level and as a result, despite grave challenges posed by the COVID-19 pandemic, **GS** Caltex successfully maintained the highest level of credit rating in the industry in 2020. We have also secured sufficient credit lines and diversified our loan sources to create a balanced loan portfolio and strengthen our competitiveness in financing and risk management.

Non-Financial Risk Management

The growing demand for sustainable business practices has made the management of ESG issues more critical than ever. As such, **GS** Caltex is leveraging collaborative efforts of related departments to manage non-financial risks. In addition, the executive-level ESG Committee reviews and makes decisions on related issues. Subsequent details related to risk management are discussed by the Safety and Environment Committee, Corporate Compliance Committee and Information Security Committee.

Classification	Governance	Related Key Policies	Main Activities
 Environment	<ul style="list-style-type: none"> ESG Committee Safety and Environment Committee 	<ul style="list-style-type: none"> Business Conduct and Ethics Code SHE Management Policy Environmental Management Policy Petroleum Product Quality Control Policy 	<ul style="list-style-type: none"> Launch environmental impact mitigation activities Establish monitoring system(emission concentration remote monitoring system, leak inspection and repair, etc.)
 Safety and Health	<ul style="list-style-type: none"> Safety and Environment Committee Occupational Safety and Health Committee COVID-19 Emergency Response Committee 	<ul style="list-style-type: none"> Business Conduct and Ethics Code SHE Management Policy Environment Consulting Policy SHE Training Policy Emergency Response Policy SHE Management Policy 	<ul style="list-style-type: none"> Risk assessment of processing Risk assessment of tasks Set up safety management plan when performing new project Conduct safety training Conduct emergency response training, etc.
 Ethics/Compliance	<ul style="list-style-type: none"> Corporate Compliance Committee Human Resource Committee Fair Trade Review Committee 	<ul style="list-style-type: none"> Business Conduct and Ethics Code Audit Policy 	<ul style="list-style-type: none"> Operate company-wide compliance program
 Supply Chain	<ul style="list-style-type: none"> ESG Committee 	<ul style="list-style-type: none"> Business Conduct and Ethics Code Code of Conduct for GS Caltex Partners SHE Management Policy for GS Caltex Partners 	<ul style="list-style-type: none"> ESG education/training for Partners ESG assessment for Partners
 Information Security	<ul style="list-style-type: none"> Information Security Committee 	<ul style="list-style-type: none"> Business Conduct and Ethics Code Information Security Policy Employee Security Policy Security Incident Response Policy Information Security Monitoring Policy Customer Privacy Policy Personal Information Protection Policy 	<ul style="list-style-type: none"> Mock training based on analysis of scenario Monitoring and log analysis of network anomalies Worksite infiltration test

Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management

Social Contribution

Key Data & Performance

Appendix

VALUE NO.1
Energy & Chemical Partner

Social Contribution

[Link to SDGs](#)

1 No Poverty



2 Zero Hunger



4 Quality Education



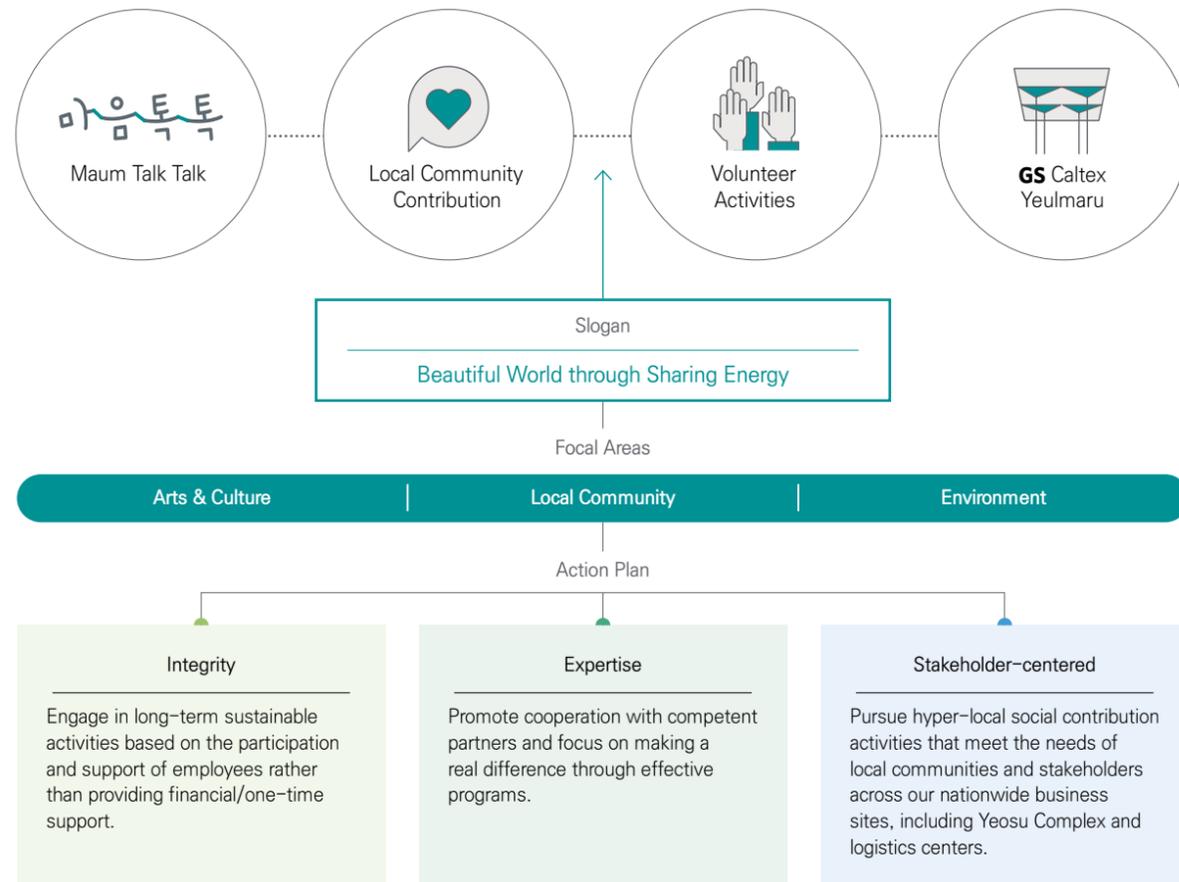
11 Sustainable Cities and Communities



Social Contribution Management System

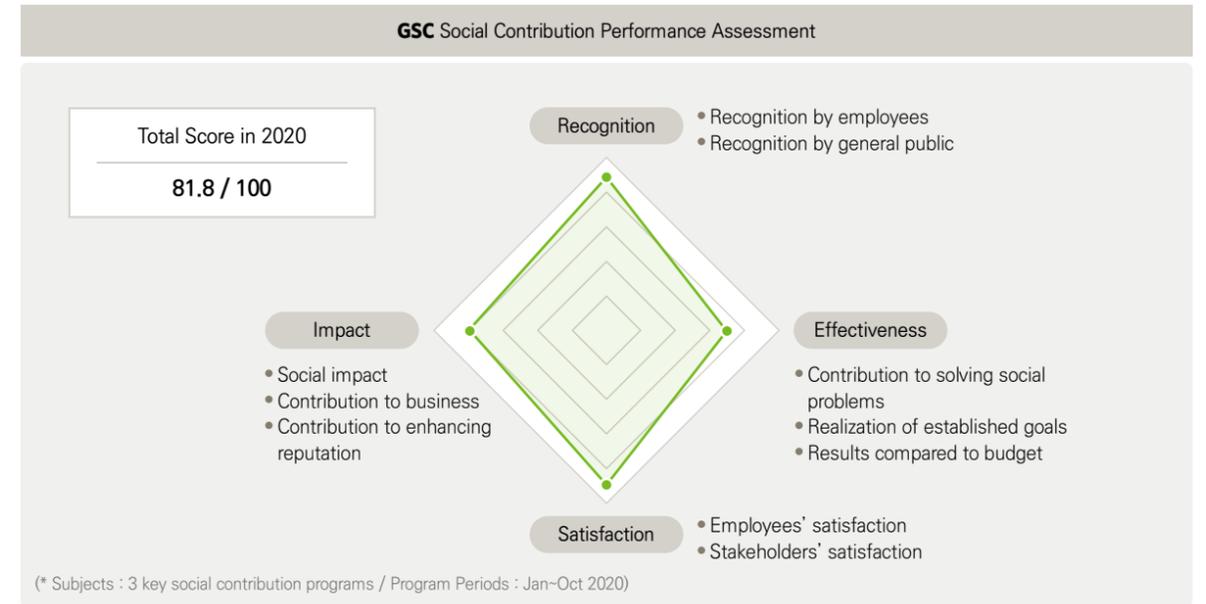
Social Contribution Strategy

Under the slogan 'Beautiful World through Sharing Energy', **GS Caltex** engages in social contribution activities that focus primarily on three areas : arts and culture, local communities, and the environment. From Maum Talk Talk, which provides art therapy to children and youths to Yeosu Culture & Arts Park Yeulmaru which supports cultural development in the city of Yeosu where our main production base is located, our community-based approach to social contribution makes a difference wherever we operate.



Social Contribution Performance Assessment System

In an effort to objectively assess the value our social contribution programs creates for society and improve performance, **GS Caltex** developed a social contribution performance assessment system that adapts the pyramid model of customer-based brand equity(CBBE). The assessment enables a multi-faceted analysis of our social contribution initiatives, including their effectiveness, satisfaction levels among participants(beneficiaries), business relevance, and social impact. The first assessment was conducted in 2020.



Maum Talk Talk Activity



Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management

Social Contribution

Key Data & Performance

Appendix

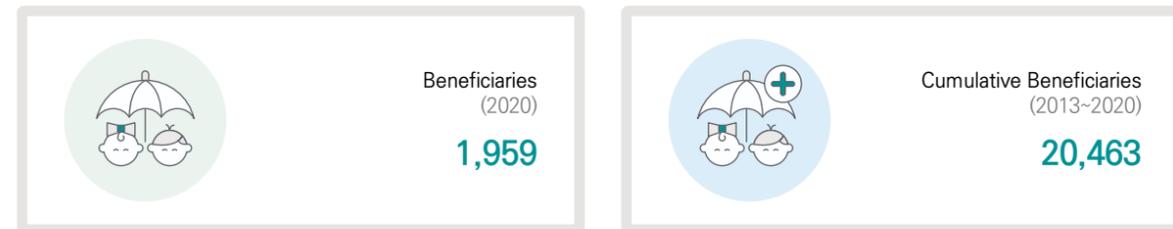
Main Social Contribution Activities

Maum Talk Talk

GS Caltex started the Maum Talk Talk program in 2013 to help enhance the social and emotional competence of children and adolescents. Voluntary donations from employees help run the initiative which is divided into prevention and therapy programs. They are designed to impart self-esteem and social skills to elementary and middle school students in need of empathy and compassion.

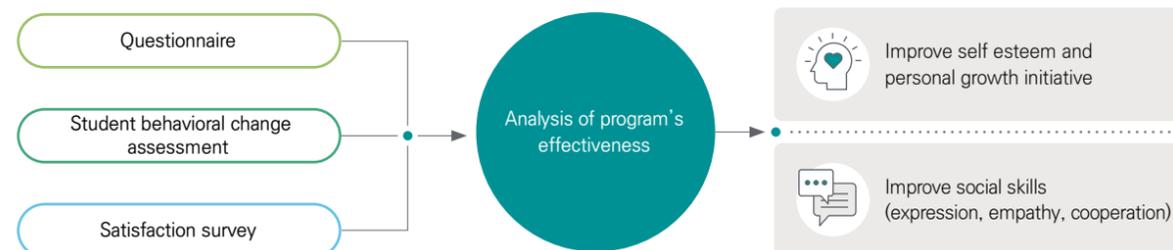
Classification	Details
 Prevention Program	'Healing Class,' open to all first-year middle school students. Learning how to avoid and respond to peer problems through group art therapy.
 Therapy Program	Emotional and psychological healing/support through group art therapy.

To increase the effectiveness of the therapy program, GS Caltex invites art therapy professors to manage and improve the programs. So far, more than 200 art therapists working for the Maum Talk Talk program have built up their capabilities with a cumulative 12,568 hours of training and clinical experience under the professors' supervision. For the past eight years, our therapists helped a total of 120,463 students across the country face emotional and psychological challenges in dealing with school life and peer relationships.



Analysis of Maum Talk Talk's Social Impact

In 2015, we developed a diagnostic tool to track psychological changes in puberty and early adolescence as well as an integrated diagnostic tool that incorporates the impact of peer relations. We are continuing efforts to improve the overall effectiveness of the program through structured analysis.



Sharing and Expanding Social Value of Maum Talk Talk

Maum Talk Talk was introduced at the 16th World Congress of Music Therapy held in South Africa in July 2020. Recognition was given to the art therapy program for at-risk youth on probation or conditional release. In October of the same year, the program was introduced in the article 'Juvenile Music Therapy through Third Party Collaboration' published in Frontiers, a prominent peer-reviewed, open access journal.

In 2020, GS Caltex planned and produced the musical 'Falling Stars' in partnership with the Association for Victims and Families of School Violence to highlight the importance of preventing school violence. The video recording of the musical is distributed for free to educational institutions for use in school violence prevention and intervention training. As of June 2021, some 800 schools representing 24,000 people have requested to see the musical. We are also planning a special job training program so general educators can learn and practice art therapy. The program will provide teachers with opportunities for personal development and empower them to guide students through art therapy.

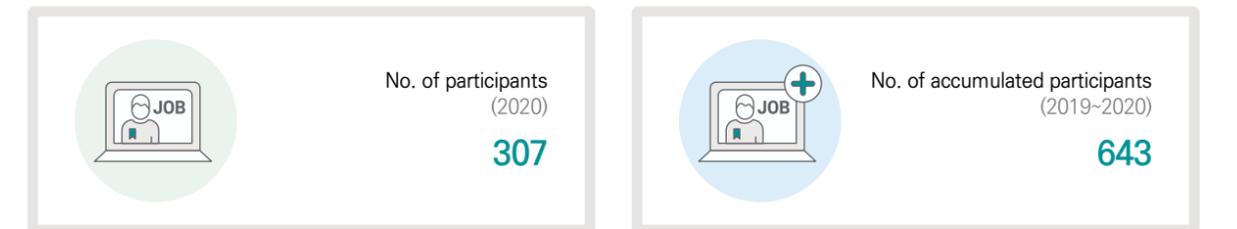
Going forward, Maum Talk Talk will offer counseling to people of all ages who face emotional and psychological challenges. One of the major initiatives is the Socio-Economic Organization for Maum Talk Talk art therapists. GS Caltex will support the development of business models by art therapists with unreliable income streams, thereby helping them gain financial independence. In turn, they will be able to help more people stay mentally and emotionally healthy.

One organization we have been supporting since 2018 established a company called White Abyss in 2020 to offer counseling services to adults. In 2021, the company is working to gain preliminary recognition as a social enterprise on its way to becoming a full-fledged social enterprise. Ultimately, the goal is to increase the acceptance and sustained availability of art therapy and counseling among the general public.

Training Program for Job-seekers

GS Caltex runs a program for young job-seekers to alleviate the psychological and emotional pressures of looking for a job and helping them prepare for the recruitment process. In 2020, we organized a well-received program for socially and emotionally disadvantaged job-seekers. The program offered analysis of the fast-changing job market, professional guidance on overcoming fears brought on by COVID-19, mental health professionals' advice on coping with anxiety, etc. to enhance participants' capabilities.

Due to the pandemic, the programs were conducted online and participants were given a chance to stay connected and stay positive as they confront a difficult job market.



Overview

2020 Core Issue

Sustainability Achievements

- Ethical Management
- Supply Chain Management
- Customer Satisfaction Management
- Human Rights Management
- Corporate Governance
- Information Security
- Risk Management

Social Contribution

Key Data & Performance

Appendix

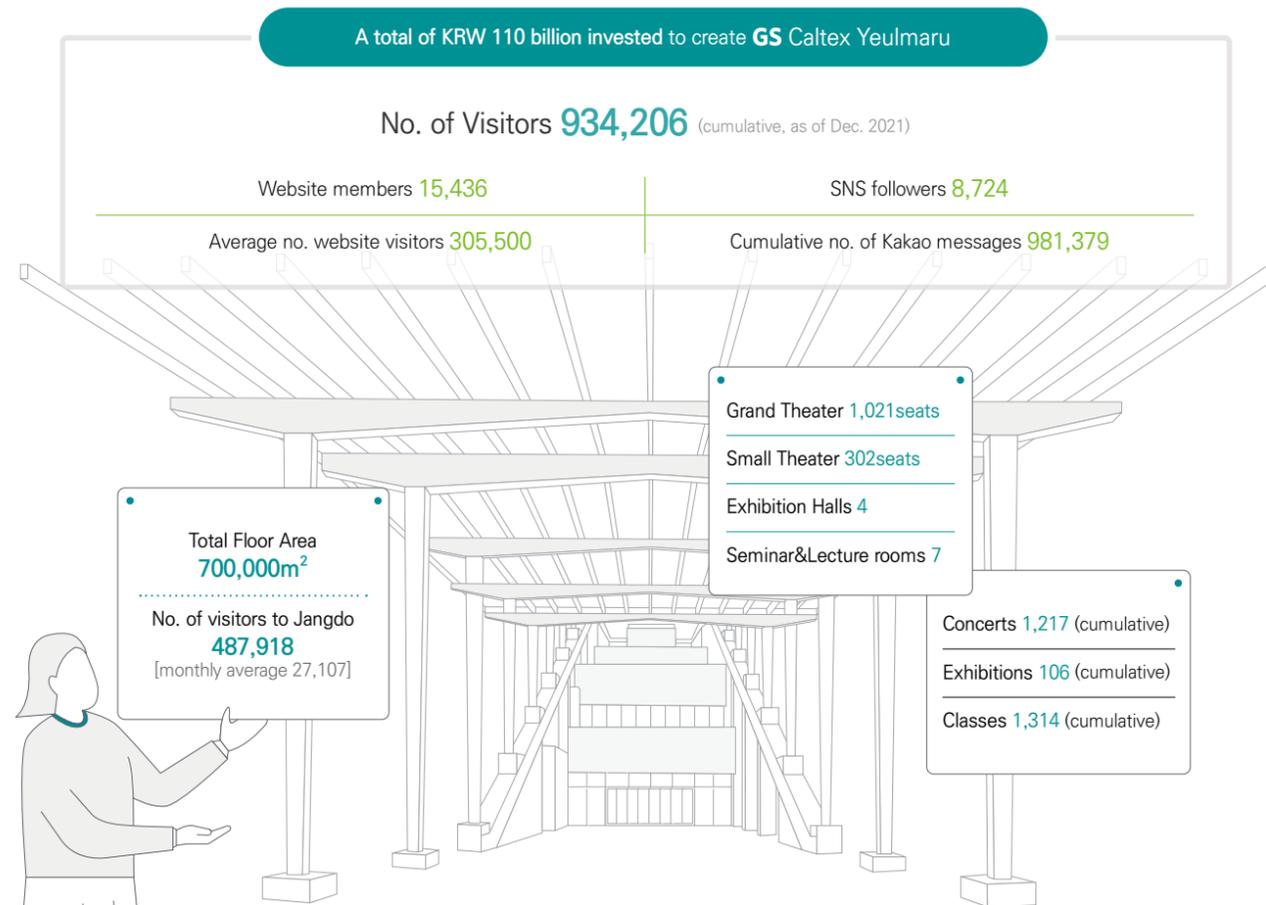
Social Contribution Activities for Local Communities

GS Caltex Yeulmaru

Located on the beautiful southern coast of Korea, GS Caltex Yeulmaru has been the region's leading arts and cultural hub since it opened in May 2012. We launched the project in 2006 and have invested over KRW 110 billion thus far. In 2017, we began operating it in partnership with the city of Yeosu. Set amidst a stunning natural landscape, Yeulmaru offers a wide range of programs to engage and enrich the lives of visitors and local citizens alike.

In May 2019, we introduced the second phase of the Yeulmaru project with Jangdo, the 'island of art.' Within two years of its opening, Jangdo attracted over 600,000 visitors and established itself as a place to relax and recharge through art. In June 2020, Jangdo Creative Studio welcomed its first class of artists. The studio's program provides artists with funding, space to create art, and active support that includes matching artists with critics, hosting open studios, and organizing exhibitions. GS Caltex has also signed a MOU with Yeosu City and Jeollanam-do Province to turn Yeulmaru into a model of Blue Economy¹⁾ with more green spaces. Starting in 2021, we are investing KRW 5 billion over a period of three years to restore Nandae Forest and create a haven of art with a botanical garden, 'ocean view' island, and nature trail.

1) Blue economy : Jeollanam-do province's economic develop strategy inspired by nature. The strategy seeks to minimize the waste of resources and follow the cycles of an ecosystem. Ultimately, the goal is to achieve sustainable growth by marrying nature's actual value to all areas of economic activities.



Communicating with Local Communities

We give considerable care and attention to air and water quality that affects the people who live near our work sites. As a part of our efforts, we communicate actively with local residents and NGOs about major operational information regarding Yeosu Complex.

Furthermore, we are launching a wide range of social contribution activities to promote the development and happiness of local communities. Our plan going forward is to connect all our communication and activities more closely to the company value chain.

General Social Contribution Program

Social Contribution Program	Activities
 <p>Support for marginalized classes</p>	<ul style="list-style-type: none"> GS Caltex Soup Kitchen for Elderly <ul style="list-style-type: none"> Since 2008, Soup kitchen for low-income senior citizens in the Yeosu area, providing lunch to some 350 senior citizens on a daily basis In 2020, delivered lunchboxes and side dishes to the elderly in lieu of soup kitchen due to COVID-19 GS Caltex Hopeful Energy Class <ul style="list-style-type: none"> Since 2010, support for educational program on dreams-vision-history geared toward elementary and middle school students at the Yeosu Children's Welfare Center GS Caltex English Classes in Romote Islands <ul style="list-style-type: none"> Since 2007, support for program that sends native English-speaking instructors to live on the islands near Yeosu city to teach at elementary and middle schools GS Caltex Warm Meals for Youth Job Seeker <ul style="list-style-type: none"> Program run with Yeosu city providing lunch to low-income job seekers studying in the city library
 <p>Environmentally-friendly activities</p>	<ul style="list-style-type: none"> Conservation Activities (Land, Ocean) <ul style="list-style-type: none"> Year-round clean up of nearby villages, major tourist attractions, beaches, and other public areas around Yeosu Complex Conservation of Marine Resources <ul style="list-style-type: none"> Increase fish recourses and protect marine resources, release abalone spats into the waters of Yeosu to increase income of residents
 <p>Employee volunteer activities</p>	<ul style="list-style-type: none"> GS Caltex Volunteer Group <ul style="list-style-type: none"> Disinfect senior citizens center, town hall, and other public facilities in Yeosu City and Gapyeong-gun, near worksites Visit the elderly living alone to deliver Energy Box, filled with relief food Produce and donate braille for blind students, paint a mural and engage in other contact-free volunteer activities GS Caltex One-Heart Fund <ul style="list-style-type: none"> Started in 2005, the company matches employee donations to charity organizations chosen by employees

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Key Data & Performance

energy+ hub GS 칼텍스

VALUE NO.1

Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

[Overview](#)
[2020 Core Issue](#)
[Sustainability Achievements](#)
[Key Data & Performance](#)
[Financial Data](#)
[ESG Data & Performance](#)
[Appendix](#)

Financial Data

Consolidated Statements of Financial Position

Category	Unit	2018	2019	2020
Total assets	KRW 1M	19,559,536	20,427,735	19,740,218
Total current assets		9,485,635	8,653,959	6,797,551
Total non-current assets		10,073,901	11,773,776	12,942,667
Total liabilities		8,752,572	9,430,712	9,696,509
Total current liabilities		6,080,259	5,211,036	5,229,255
Total non-current liabilities		2,672,313	4,219,676	4,467,254
Total equity		10,806,964	10,997,023	10,043,709

Consolidated Statements of Income

Category	Unit	2018	2019	2020
Sales	KRW 1M	36,363,010	33,261,489	22,300,614
Operating profit		1,234,218	879,660	(919,208)
Net income		703,568	452,617	(775,432)

Credit Rating

Category	2018	2019	2020
S&P	BBB+(S)	BBB+(N)	BBB(S)
Moody's	Baa1(S)	Baa1(S)	Baa1(S)
Korea Ratings	AA+(S)	AA+(S)	AA+(S)
Korea Investors Service	AA+(S)	AA+(S)	AA+(S)
NICE	AA+(S)	AA+(S)	AA+(S)

Domestic & Foreign Tax Payments

Region	Unit	2018	2019	2020
Korea	KRW 1M	290,030	137,802	(315,987)
Asia		2,465	2,534	3,639
Europe		18	1,413	335
Others ¹⁾		(40)	(1)	(6,003)
Total		292,472	141,747 ²⁾	(318,015) ²⁾

1) Internal transactions between consolidated entities are adjusted and reflect in the Others category

2) There may be difference in total amount and the sum total per region according to unit round-off

Domestic Tax Payments³⁾

Category	Unit	2018	2019	2020
Nominal tax	KRW 1M	282,113	133,305	(318,411)
Nominal tax rate	%	29.35	23.5	28.6
Effective tax	KRW 1M	218,867	137,064	(583)
Effective tax rate	%	22.77	24.2	0.1

3) Separate financial statement

R&D Investment⁴⁾

Category	Unit	2018	2019	2020
R&D investment	KRW 100M	515	510	515

4) Excluding government subsidy

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

ESG Data & Performance

Environment

GHG¹⁾

Category		Unit	2018	2019	2020
Scope 1 : Fixed combustion, mobile combustion and process emission	Direct emissions	tCO ₂ eq	6,342,643	6,356,466	6,100,541
	Intensity ²⁾	tCO ₂ eq /KRW 100M	17.44	19.11	27.36
Scope 2 : Externally purchased steam and power	Indirect emissions	tCO ₂ eq	1,643,893	1,690,788	1,688,245
	Intensity ²⁾	tCO ₂ eq /KRW 100M	4.52	5.08	7.57
GHG emissions	Carbon dioxide(CO ₂)	1,000 ton	7,931.8	7,993.9	7,743.9
	Methane(CH ₄)	ton	2,151.7	2136.1	1,825.6
	Nitrogen dioxide(N ₂ O)		30.7	27.6	21.1

1) Based on all work sites of GS Caltex and reflects partial post-alterations

2) Based on sales as reported in the current year's Annual Report

Energy Consumption³⁾

Category		Unit	2018	2019	2020
Energy consumption		TJ	102,307	105,917	101,519
Intensity ⁴⁾		TJ/ KRW 100 million	0.28	0.32	0.46

3) Based on all work sites of GS Caltex and reflects partial post-alterations. Numbers adjusted following alterations to the scope and basis of calculations.(Numbers are subject to change according to modifications in the range and standards)

4) Based on sales as reported in the current year's Annual Report

Air Pollutant Emissions⁵⁾

Category		Unit	2018	2019	2020
Dust		ton	122.5 ⁶⁾	193.2	101.2
Nitrogen Oxide(NO _x)			3,314.3	2,858.4	2,091.2
Sulfur Oxide(SO _x)			6,543.1	1,901.5	138.4
Carbon Monoxide(CO)			732.6	359.7	37.1
Volatile Organic Compounds(VOC)			137.9	97.8	57.8
Hazardous Air Pollutants(HAPs)			73.3	46.0	22.0

5) Major Air Pollutant Discharging Facilities : RFCC CO Boiler, Heater, Package Boiler

6) Numbers are subject to change according to modifications in the range and standards

Air Pollutant Concentrations⁷⁾

Category		Unit	Legal requirement	2018	2019	2020
Dust		mg/m ³	30	4.1	3.1	3.3
Nitrogen Oxide(NO _x)		ppm	150	66.0	42.0	32.7
Sulfur Oxide(SO _x)			180	46.4	9.2	1.2
Carbon Monoxide(CO)			200	24.4	8.7	10.5

7) Effluent standards and average concentration level of standard boilers(Dust/NO_x/Sox) and incineration facilities(Carbon monoxide)

Water Resource Management

Category		Unit	2018	2019	2020
Water consumption	Daily average consumption	ton	53,476	53,852	54,230
Wastewater discharge	Daily average Discharge		28,057	31,517	29,272
Recycling rate of wastewater	Volume of recycled wastewater/generated Wastewater	%	17.7	17.6	17.5

Water Pollutant Emissions⁸⁾

Category		Unit	2018	2019	2020
Biochemical Oxygen Demand(BOD)		ton	224.0	129.3	256.6
Chemical Oxygen Demand(COD)			200.0	169.3	223.8
Suspended Solids(SS)			75.0	80.6	84.9

8) Major Facilities Discharging Water Pollutants : Petroleum Refinery Facilities, Basic Petrochemical Compound Production Facilities, Industrial Water Purification Facilities

Water Pollutant Concentrations⁹⁾

Category		Unit	Legal requirement	2018	2019	2020
Biochemical Oxygen Demand(BOD)		ppm	30	8.0	7.3	8.2
Chemical Oxygen Demand(COD)			40	11.3	10.7	11.7
Suspended Solids(SS)			30	3.7	3.9	6.6

9) Discharge standards and concentration level of ocean effluence

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Hazardous Chemical Consumption

Category	Unit	2018	2019	2020
Caustic soda(NaOH)	ton	24,201	37,842	62,862
Sulfuric acid(H ₂ SO ₄)		806	510	369
Hydrochloric acid(HCl)		1,818	1,727	1,695
Ammonia(NH ₃)		517	344	314

Waste

Category		Unit	2018	2019	2020	
Waste discharge	Designated waste	ton	20,093	26,325	16,833	
	General waste		22,874	21,315	25,024	
	Subtotal			47,640	41,857	
Waste treatment	Recycling	ton	Recovered fuel (waste oil/solvents)	13,280	15,076	6,839
			Recovered metal (catalysts)	5,435	8,132	7,282
			Fertilizer (for composting)	305	320	320
			Other types of recycling	9,882	12,675	18,417
			Subtotal	28,902	36,203	32,858
			Recycling rate(%)	67.3	76.0	78.5
	Incineration	2,064	1,771	3,574		
	Landfill	10,787	9,117	4,751		
Comminution	1,214	549	674			
Total		42,967	47,640	41,857		

Environment Energy Certification

Category	Worksite	Validity Period
ISO14001	Yeosu Complex	July 2018 ~ July 2021
ISO50001	Yeosu Complex	Dec. 2020 ~ Dec. 2023

Soil Contamination Inspection

Category	Unit	2018	2019	2020
Gas stations soil contamination inspection	No.	147	308	59 ¹⁾

1) Soil contaminations decreased in 2020 due to the reduced number of gas stations

Investment in Environmental Protection

Category	Unit	2018	2019	2020
Wastewater & marine contamination	KRW 100 million	32	48	62
Air pollution		369 ²⁾	380 ²⁾	60
volatile organic compounds		14	31	37
Soil contamination		106	109	94
Others		40	48	52
Total		561	616	305

2) Includes investment in RFCC Wet Scrubber

Voluntary Environmental Management Agreements

Category	Periods	Related Activities
Voluntary Agreement for Soil Preservation	2013 ~ 2023	Prevention of soil contamination by oil spills through voluntary inspection and restoration
Joint Agreement for Emergency Response to Chemical Accidents (Chemical Safety Association)	2013 ~	Establishment of an emergency response plan for the prevention and management of chemical accidents
Voluntary Agreement for Reducing High Concentrations of Fine Dust	Dec. 2019 ~ Dec. 2022	Implementation of more stringent emission standards than legal requirements

Protected Areas Around Worksites and Relevant Activities

Category	Details	Note	Related Activities
Water Source Protected Area	One Water Source Protected Area designated in Mipyeong-dong, Yeosu	Distance from the work site : 6.4km	-
Wildlife Protected Area	Three wildlife protected areas in Yeosu. With the closest one located at San 195-1, Jungheung-dong	Distance from the work site : 2.9km	-
Nature Park	Odong Island, located off in the eastern part of the Yeosu Peninsula, is part of the Hallyeo National Marine Park. Also, the waterfront and certain areas of Dolsaneup are designated as part of Dadoha National Marine Park	Distance from • Hallyeo National Marine Park : 6.5km • Dadoha National Marine Park : 27km	-
Designated Island Area	14 designated island areas in Yeosu, the closest one is Gadeok Island	Distance from the worksite : 12.3km	Activities to protect eco-system
Special Controlled Area	Located in the Special Controlled Area	-	-
Air Environment Regulated Areas	Designated an Air Environment Regulated Area pursuant to the Environmental Policy Act Ministry of Environment Notice 2018-23 "Designation of air environment regulated areas and comprehensive measures to reduce air pollutions in the region"	-	Activities to reduce air pollution
Low Sulfur Oil Supply and Use Area	Pursuant to the Enforcement Decree of the Clean Air Conservation Act Asterisk 10-2, the sulfur content(Low Sulfur Waxy Residue) must be 0.3% or less	-	-

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Employees

Employees¹⁾

Category		Unit	2018	2019	2020	
Total			3,212	3,283	3,267	
By employment type	Executives		45	48	46	
	Full-time		3,026	3,136	3,129	
	Part-time		141	99	92	
By location	Seoul, others	Persons	1,448	1,387	1,339	
	Yeosu		1,764	1,896	1,928	
By age	Over 50		745	884	969	
	30-50		1,912	1,827	1,754	
	Under 30		555	572	544	
By gender	Male		2,893	2,964	2,967	
	Females		319	319	300	
Employees subject to pension system				2,579	2,796	2,786
Retirees				131	195	148
Retirement rate				4.1	5.9	4.5
Percentage of female employees		%	9.9	9.7	9.2	
Percentage of employees with disabilities			1.3	1.2	1.9	
Total employee compensation		KRW 100 million	3,891	3,669	3,400	
Years of continuous service		Years	14.7	14.7	15.2	

1) As of end of December 2020

Recruitment

Category		Unit	2018	2019	2020
New employees			396 ²⁾	278	175
By gender	Male	Persons	325 ²⁾	235	123
	Female		71	43	52
By location	Headquarters, Region		187	136	50
	Yeosu Complex		209	142	125

2) Expansion in new hires due to work hour reduction, MFC project, etc.

Parental Leave

Category		Unit	2018	2019	2020
Employees on parental leave	Male	Persons	2	4	5
	Female		15	10	20
Employees who returned from parental leave	Male		0	1	3
	Female		10	9	9
Employees who have worked for 12 months after returning from parental leave	Male		3	2	2
	Female		13	6	11

Female Management Positions

Category		Unit	2018	2019	2020
Executives	No.	Persons	1	1	1
	Ratio	%	2.2	2.1	2.2
Senior managers	No.	Persons	10	12	13
	Ratio	%	4.5	4.9	5.7
Managers	No.	Persons	88	90	93
	Ratio	%	10.8	10.4	10.5

HR Development

Category		Unit	2018	2019	2020
Training investment expenses		KRW 100 million	65	62	30
Training hour per person ³⁾		Hours	74	58	48
Organization competency survey result (Satisfaction/Immersion)		Point	80	76	72

3) Including on and offline training of all employees, based on the no. of employees as reported in the relevant year's Annual Report.

EAP(Employee Assistance Program) Users

Category		Unit	2018	2019	2020
Personal consultation		Persons	312	192	173
Financial consultation			21	51	42
Legal consultation			11	11	16

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Labor Union

Category	Unit	2018	2019	2020
Members registered with labor union	Persons (registered/employee number)	1,398/1,934	1,524/1,936	1,520/1,897
Discussion and negotiation on changes in business management with the labor union	No. of issues	0 (no significant changes in business management)	0 (no significant changes in business management)	0 (no significant changes in business management)
Labor disputes	Cases	0	0	0

Wages

Category	Unit	2018	2019	2020
Ratio of new employees' wages to minimum wage in key worksites ¹⁾	Manufacturing engineering	190	139	135
	Office staff	233	197	194

1) No gender discrimination

Performance Evaluation²⁾

Category	Unit	2018	2019	2020
Percentage of employees who are assessed by their direct supervisors with agreed-upon measurable goals ³⁾	%	93	99	98
Percentage of employees who received periodical reviews on performance and career development ⁴⁾		87	87	89

2) Numbers adjusted following alterations to the scope and basis of calculations

3) Excluding those on leave who worked less than 6 months of the year and new employees who entered the company that year

4) Percentage of employees who set goals and are reviewed in the middle/end of the year

Customers

Customer Satisfaction Certification

Category	2018	2019	2020
KSQ(Korean Service Quality Index)	Excellent Call Center	Excellent Call Center	Excellent Call Center
NCSI(National Customer Satisfaction Index) Gas Station Category	1st place (10 years in a row)	1st place (11 years in a row)	1st place (12 years in a row)

Customer Satisfaction Activities

Category	Unit	2018	2019	2020
No. of gas stations	Stations	2,510	2,368	2,354
No. of LPG filling stations		400	391	389
Domestic market share	%	24.5	24.0	23.5
Customer complaint processing time	Days	0.7	0.7	0.7

Quality Inspection

Category	Unit	2018	2019	2020
Gas station	No. of inspections	4,936	5,643	5,723
LPG filling station		458	437	432

Quality Management Certification

Category	Worksite	Validity Period
ISO9001	Yeosu Complex	July 2018 ~ July 2021

Information Security Certification

Category	2018	2019	2020
PIMS(Personal Information Management System) ⁵⁾	Certified	Certified	Completed obtaining ISMS-P integrated certification
ISMS(Information Security Management System) ⁶⁾	Certified	Certified	
ISMS-P(Personal Information & Information Security Management System) ⁷⁾	-	-	Certified

5) Procedures and process set up by a company to protect and continuously manage customers' personal information in a systemic manner

6) System that organically integrates and manages various security measures by setting up policies unique to the organization and addressing risks at all times

7) Management system consisting of a series of measures and actions to protect information and personal security. The company is subject to an integrated ISMS-P certification following the integration of PIMS and ISMS in 2020.

Customer Information Security

Category	Unit	2018	2019	2020
Customer information related complaints	Issues raised by third-party victim and verified internally by the organization	0	0	0
	Issues raised by regulatory institution	0	0	0
Data leakage, theft and loss		0	0	0

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Safety and Health

Occupational Safety and Health Indicators

Category		Unit	2018	2019	2020
Employees & partners	TRIR ¹⁾		0.13	0.15	0.19
	DAFWR ²⁾		0.09	0.08	0.15
	LTIFR ³⁾		0.66	0.77	0.96
	LTISR ⁴⁾		0.025	0.023	0.033
Employees	TRIR ¹⁾		0.10	0.09	0.30
	DAFWR ²⁾		0.06	0.03	0.21
	LTIFR ³⁾		0.48	0.45	1.49
	LTISR ⁴⁾		0.009	0.027	0.050
	Work-related death(Male)	Persons	0	0	0
	Work-related death(Female)		0	0	0
Partners	TRIR ¹⁾		0.16	0.19	0.16
	DAFWR ²⁾		0.11	0.12	0.13
	LTIFR ³⁾		0.82	0.97	0.78
	LTISR ⁴⁾		0.038	0.020	0.028
	Work-related death(Male)	Persons	0	0	0
	Work-related death(Female)		0	0	0

1) TRIR(Total Recordable Incident Rate) : No. of incidents(any injuries, illnesses, and fatalities, excluding those equivalent to or less serious than incidents requiring first aid) that occur per every 200,000 man-hour(hours 100 GS Caltex and partners' employees work for one year)
 (Number of incidents/Number of hours worked) x 200,000 man-hour
 2) DAFWR(Days Away From Work Rate) : No. of incidents that cause a loss of one or more days' work per every 200,000 man-hour
 (Number of incidents that cause a loss of work/Number of hours worked) x 200,000 man-hour
 3) LTIFR(Lost Time Injury Frequency Rate) : No. of accidents x 1,000,000/annual total hours of work
 4) LTISR(Lost Time Injury Severity Rate) : No. of work days x 1,000/annual total hours of work

Occupational Illness Frequency Rate⁵⁾

Category	2018	2019	2020
Occupational illness frequency rate among employees ⁶⁾	0	0	0.15

5) Based on Korea Workers' Compensation & Welfare Service standards
 6) Occupational Illness Frequency Rate : Cases x 1,000,000/total hours worked

Accidents Related to the Safety of the Production Process⁷⁾

Category	Unit	2018	2019	2020
Tier 1 ⁸⁾	No. of incidents ⁹⁾	1 ¹⁰⁾	0	0
Tier 2 ⁸⁾		0	2	1

7) A severe accident required to report based on process safety standards defined by the American Petroleum Institute(API)
 8) Tier1 & Tier 2 Accident that incur USD100,000/USD 2,500respectively according to API standards
 9) No. of incidents per million work hour
 10) Figure was changed out of necessity

Occupational Safety Drills

Category	Drill	2019	2020
Company-wide	Companywide firefighting/response drills	1 time/quarter	1 time/year
	Firefighting/response drills	2 times/year(by shift)	1 time/year(by shift)
Work site ¹¹⁾	On & offshore oil spill response drills	2 times/year(by shift)	1 time/year
	Emergency response drills	Work site training, 16 times/year	Work site training, 16 times/year
	Process dry training ¹²⁾	1 time/month(by shift)	1 time/month(by shift)
	Early response drills	1 time/month(by shift)	1 time/month(by shift)

11) The workplace drills are based in the Yeosu Complex, and internal drills are conducted under individual guidelines for each place
 12) One type of training according to the emergency response scenario

Occupational Safety Certification

Item	Worksite	Validity Period
KOSHA18001	Incheon Lubricant Plant	Nov. 2020 ~ Jun. 2022

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Supply Chain

Partners Status¹⁾

Category	Unit	2018	2019	2020
Partners with transaction performance	No. of companies	1,347	1,446	1,275
Purchase amount	KRW 100 million	12,820	33,316	12,371

1) 2020 partners comprise 797 material companies and 478 service companies

Mutual Growth Prime Rate

Category	Unit	2018	2019	2020
Partners with transaction performance	No. of companies	81	84	75
Amount	KRW 100 million	628	622	477

Partners Industrial; Safety Training²⁾

Category	2018	2019	2020	
Yeosu Complex	Construction supervisor safety training	32 companies/52 participants	22 companies/60 participants	Cancelled ³⁾
	Signalman certification course	49 companies/324 participants	50 companies/340 participants	46 companies/400 participants
	Safety manager certification, maintenance training	57 companies/405 participants	46 companies/300 participants	18 companies/48 participants
	Cargo crane operator safety training	58 companies/178 participants	60 companies/310 participants	62 companies/392 participants
	TA special safety training	About 5,000 participants	About 3,000 participants	About 3,500 participants
Head-quarters	Safety training for coaster owners/crews	9 companies/4 times (200 participants/time)	11 companies/4 times (approx. 200 participants/time)	11 companies/4 times (approx. 200 participants/time)
	Safety training for tanker owners/crews	7 companies/2 times	8 companies/2 times	8 companies/2 times (230 participants/time)

2) Based on the total number of participants for the program(multiple participation by program and session) 3) Group training cancelled due to COVID-19

Partner ESG Management

Category	Unit	2020
Code of Conduct for GS Caltex Partners signature	Subject	1,044
	Implementation	1,044
	Percentage	100
Partners that signed contract with Environment, Labor, Human Rights Clause	Subject	1,044
	Implementation	1,044
	Percentage	100
Key partner ESG training ⁴⁾	Subject	107
	Implementation	107
	Percentage	100
Key partners that executed ESG assessment	Subject	107
	Implementation	102
	Percentage	95
Key partners that executed ESG audit	Subject	102
	Implementation	4
	Percentage	4

4) ESG training proceeded with online materials for key suppliers

Social Contribution

Social Contribution

Category	Unit	2018	2019	2020
Total social contribution spending ⁵⁾	KRW 100 million	149	157	154
Annual number of persons who took part in volunteering ⁶⁾	Persons	1,766 ⁷⁾	1,282	818 ⁸⁾

5) Amount executed for social contribution purposes. It is different from donations specified in the business report

6) The number of volunteers decreased compared to 2017 due to the 52-hour workweek

7) Numbers are subject to change according to modifications in the range and standards

8) Based on non-contact volunteering activities due to COVID-19

Social Contribution Program – Maum Talk Talk Program

Category	Unit	2018	2019	2020	
Maum Talk Talk Activities	Prevention program (Healing class)	No. of schools	5	5	7
		No. of children	628	744	1,140
	Therapy program (Low-income/school violence victims)	No. of organizations	36 ⁹⁾	29	18
		No. of children	2,247	2,211	819
	Total	No. of children	2,875	2,955	1,959

9) Numbers are subject to change according to modifications in the range and standards

GS Caltex Yeulmaru Spending & Performance

Category	Unit	2018	2019	2020
Amount invested in GS Caltex Foundation ¹⁰⁾	KRW 100M	40	48	49
Annual number of visitors to performances	Persons	66,864	78,506	17,769
Annual number of visitors to exhibition		19,477	76,734	35,287
Annual performances, exhibitions and academy events	No. of events	387	417	141 ¹¹⁾

10) The amount included in GS Caltex social contribution spending such as an operating expense paid to GS Foundation

11) Reduced activities due to COVID-19

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Financial Data

ESG Data & Performance

Appendix

Governance

Board Meeting Attendance Status

Category	Unit	2018	2019	2020
Average board meeting attendance rate	%	95.6	96.3	96.3

Fair Trade Issue

Category	2018	2019	2020
Number of enforcement actions (both ongoing and settled) for violations of anti-competition laws and regulations	<ul style="list-style-type: none"> GS Caltex agreed to pay criminal fines and civil damages to the US Department of Justice for rigging bids on contracts for provision of fuel to United States military installations in Korea. GS Caltex is working to prevent recurrence by reinforcing corporate compliance function and employee training 	<ul style="list-style-type: none"> GS Caltex was fined for the delay in reporting the combination of enterprise between Cardoc and LUFTT Korea. GS Caltex was fined for failure to register an affiliate for borrowing our name. GS Caltex is working to prevent recurrence by strengthening employee training and improving internal processes. 	None

Compliance Training¹⁾

Category	Unit	2018	2019	2020
Training participants	Online	2,212	2,355	2,368
	Offline	905	941	875
Official letter of cooperation sent out	Cases	5,855	5,774	5,457

1) As of the end of 2020 CCP training period, 3,243 employees fully completed trainings on ethical management, sexual harassment prevention, human rights (excluding those exempted for the year's training due to leave of absence, overseas dispatch, etc.)

Ethical Management Hotline Reports & Actions(2020)

Reports						
Category	Unit	Complaints	Corruption	Petition	Other	Total
Customers	No. of cases	10	-	1	-	11
Partners		-	-	4	3	7
Employees		-	1	-	-	1
Others		1	-	8	8	17
Total		11	1	13	11	36

Actions ²⁾						
Category	Unit	Customers	Partners	Employees	Other	Total
Investigation (Audit)	No. of cases	-	3	1	4	8
Transfer to relevant department		9	1	-	9	19
Others		2	3	-	4	9
Total		11	7	1	17	36

2) No. of those disciplined after the action : 0



Overview

2020 Core Issue

Sustainability Achievements

Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

APPENDIX



VALUE NO.1
Energy & Chemical Partner

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

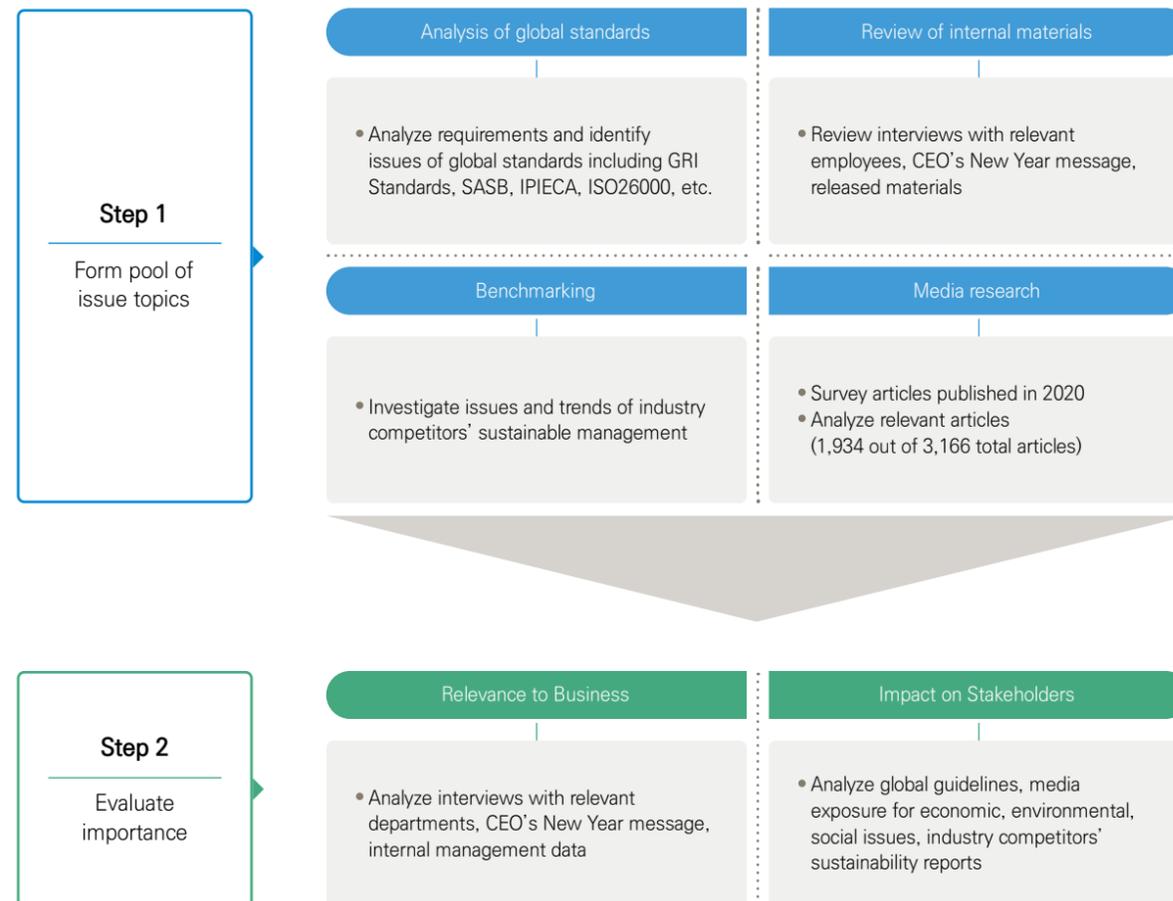
Materiality Assessment

GS Caltex identified material reporting issues related to sustainable management in accordance with the selection criteria of the Global Reporting Initiative(GRI) Standards and evaluated each issue for its relevance to the industry and impact on stakeholders.

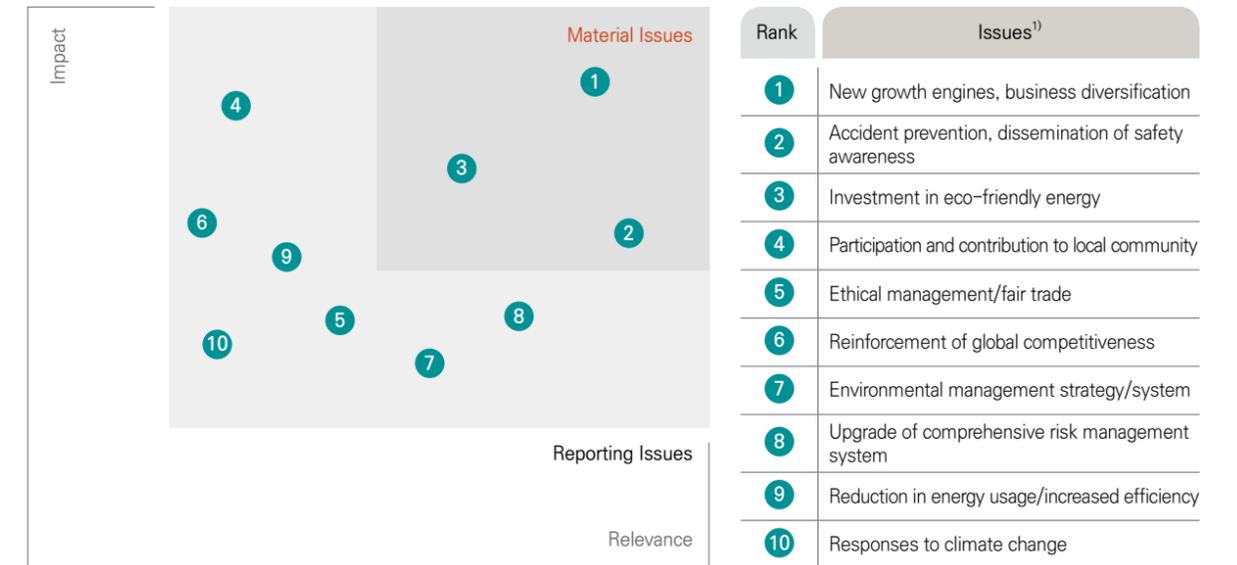
In total, 37 topics were chosen based on an aggregate of global standards set by GRI Standards, UN SDGs, IPIECA, etc. as well as sustainable management trends within the industry. Based on relevance to the industry and impact on stakeholders, the topics were subdivided into three material issues and seven reporting issues.

We confirmed that issues were highly relevant to the industry based on focus group interviews(FGI) with employees, professional assessments, review of internal company data, etc. High impact issues were determined by benchmarking industry competitors and referencing media exposure and international organizations. The '2020 Core Issues' section of this Sustainability Report contains the main activities and results related to the issues laid out in the materiality assessment.

Materiality Assessment Process



Materiality Assessment Results



¹⁾ 'Upgrade of comprehensive risk management system' and 'environmental management strategy/system' are new additions to the 2020 issues.

Communications with Stakeholders

GS Caltex practices sustainability management based on communication with our stakeholders. Stakeholders are categorized into national®ional governments, local communities, customers, employees, etc. and reached through the following communication channels.

Classification of Stakeholders and Communication Channels

Stakeholder	Communication Channels	Communication Topics
National & regional governments	Public hearings, meetings, seminars, newsletter, regional government websites	Changes in government policy, tax compliance, trends by industry, trends by regional government
Local community	Social contribution programs, meetings, briefing sessions	Environmental protection, contribution to local economy, job creation, social contribution
Customers	Customer service center, social networking sites, website	Customer services, privacy, pricing, marketing, product quality, customer safety, networks, responses to future environment
Employees	Company newsletter, internal message board, surveys, collective bargaining, labor-management conference, various labor-management task forces	Collective agreements and negotiations, compensation, talent development, human rights protection, occupational safety and health
Shareholders/ Investors	Business reports, disclosures	Disclosure of management information, protection of investor/shareholder interests
Partners	Meetings, sales portals, surveys	Mutual growth, occupational health and safety, changes in government policy, fair trade

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

Global Standards & Initiatives

General Standards

GRI Index			UNGC Advanced	SASB	IPECA	Pages	Notes
Organizational Profile	102-1	Name of the organization				-	GS Caltex Corporation
	102-2	Activities, brands, products, and services	2			6	
	102-3	Location of headquarters				-	GS Tower, 508 Nonhyeon-ro, Gangnam-gu, Seoul
	102-4	Location of operations				-	China, Czech Republic, India, Singapore, Mexico, London, etc.
	102-5	Ownership and legal form				36	
	102-6	Markets served				6	
	102-7	Scale of the organization				46	
	102-8	Information on employees and other workers				46	
	102-9	Supply Chain	2			49	
	102-10	Significant changes to the organization and its Supply Chain				-	No significant changes
	102-11	Precautionary Principle or approach	1			38	
	102-12	External initiatives	15-18		GOV-4/CCE-6	27, 53-55, 59	
	102-13	Membership of associations	15-18	NR0103-16		58	
Strategy	102-14	Statement from senior decision-maker	19-20			3	
Ethics and Integrity	102-16	Values, Principles, standards, and norms of behavior			GOV-1	4, 8, 29, 56	
	102-17	Mechanisms for advice and concerns about ethics	12-14		GOV-2		
Governance	102-18	Governance structure	2		GOV-1	9, 36	
	102-20	Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental, and social topics	1			9, 38	
Stakeholder Engagement	102-40	List of stakeholder groups				52	
	102-41	Collective bargaining agreements	3-5			53	In the event there is any revision to Article 17 of the Collective Agreement of Labor regarding Duty of Disclosure, such a revision shall be notified to all employees.
	102-42	The basis for identifying and selecting stakeholders with whom to engage				52	
	102-43	Approach to stakeholder engagement				52	
	102-44	Key topics and concerns raised				52	
Reporting Practice	102-45	Entities included in the consolidated financial statements				사업보고서	
	102-46	Defining report content and topic Boundaries				52	
	102-47	List of material topics				52	
	102-48	Restatements of information				About this report	
	102-49	Changes in reporting				Refer to the business report	
	102-50	Reporting period				About this report	
	102-51	Date of most recent report				About this report	
	102-52	Reporting cycle				About this report	
	102-53	Contact point for questions regarding the report				About this report	
	102-54	Claims of reporting in accordance with the GRI Standards	21			About this report	
Management Approach	102-55	GRI content index				53-55	
	102-56	External assurance				56-58	
	103-1	Explanation of the material topic and its Boundary				10, 16, 23	
	103-2	The management approach and its components				10, 16, 23	
	103-3	Evaluation of the management approach				10, 16, 23	



Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

Topic-Specific Standards

GRI Index			UNGC Advanced	SASB	IPIECA	Pages	Notes
Economic(GRI 200)							
Economic Performance	201-1	Direct economic value generated and distributed			SOC-14	6, Homepage	https://www.gscaltex.com/en/business
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation			SOC-5	47	
	202-2	Percentage of senior management at significant locations of operation that are hired from the local community			SOC-15	47	
Indirect Economic Impacts	203-1	Infrastructure investments and services supported			SOC-13	39-41	
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures	12-14		GOV-3/SOC-8	30, 50	
	205-3	Confirmed incidents of corruption and actions taken			GOV-3/SOC-8	50	
Anti-Competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		NR0103-14		Refer to the business report	p.273-278
Environmental(GRI 300)							
Energy	302-1	Energy consumption within the organization		NR0103-13 NR0103-14	CCE-3/CCE-6	20, 44	
	302-4	Reduction of energy consumption			CCE-3	20, 44	
Water and Effluents	303-3	Water withdrawal			ENV-1	21, 44	
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas			ENV-3/ENV-4	45	
Emissions	305-1	Direct(Scope 1) GHG emissions		NR0103-01 NR0103-02	CCE-2/CCE-4	19, 44	
	305-2	Energy indirect(Scope 2) GHG emissions				19, 44	
	305-7	Nitrogen oxides(NO _x), sulfur oxides(SO _x), and other significant air emissions		NR0103-03	CCE-5/CCE-7/ENV-5	44	
Effluents and Waste	306-2	Waste by type and disposal method	9-11		ENV-2/ENV-7/ ENV-8	44	
	306-3	Total number and total volume of recorded significant spills	9-11	NR0103-07	ENV-6	22	
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	11	NR0103-06		Refer to the business report	p.273-278



Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

Topic-Specific Standards

GRI Index			UNGC Advanced	SASB	IPIECA	Pages	Notes
Social(GRI 400)							
Employment	401-1	New employee hires and employee turnover			SOC-4/SOC-6	46	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees			SOC-4	35	
Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	15-18		GOV-2	34, 47	
Occupational Health and Safety	403-1	Percentage of workers whose work, or workplace, is controlled by the organization, that are represented by formal joint management-worker health and safety committees	6-8		SHS-1	48	
	403-3	Occupational health services			SHS-2	14	
	403-4	Health and safety topics covered in formal agreements with trade unions	6-8			23, 25	
	403-6	Promotion of worker health			SHS-2	24	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships			SHS-6	24-26	
	403-8	Workers covered by an occupational health and safety management system			SHS-1	48	100%
	403-9	Work-related injuries			SHS-3/SHS-4/SHS-6	48	
Training and Education	403-10	Work-related ill health			SHS-2	48	
	404-2	Programs for upgrading employee skills and transition assistance programs			SOC-7	35	
Diversity and Equal Opportunity	404-3	Percentage of employees receiving regular performance and career development reviews			SOC-5/SOC-7	35, 47	
	405-1	Diversity of governance bodies and employees			SOC-5	46	
Non-Discrimination	405-2	Ratio of basic salary and remuneration of women to men			SOC-5	Refer to the business report	p.254
	406-1	Incidents of discrimination and corrective actions taken			SOC-1	-	No significant changes
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	3-5		SOC-1	-	No significant changes
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3-5		SOC-1	-	No significant changes
Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples			SOC-10/SOC-11	-	No significant changes
Human Rights Assessments	412-2	Employee training on human rights policies or procedures	3-5		SOC-1	50	
Local Communities	413-1	Percentage of operations with implemented local community engagement, impact assessments, and/or development programs			SOC-9/SOC-12	39, 41	
Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken			GOV-3/SOC-2/SOC-2	-	No significant changes
Customer Health and Safety	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services			SHS-5	-	No significant changes
Marketing and Labeling	417-2	Incidents of non-compliance concerning product and service information and labeling				-	No significant changes
	417-3	Total number of incidents of non-compliance with regulations and/or voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship				-	No significant changes
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data			SHS-7	-	No significant changes
Socioeconomic Compliance	419-1	Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area				50	

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

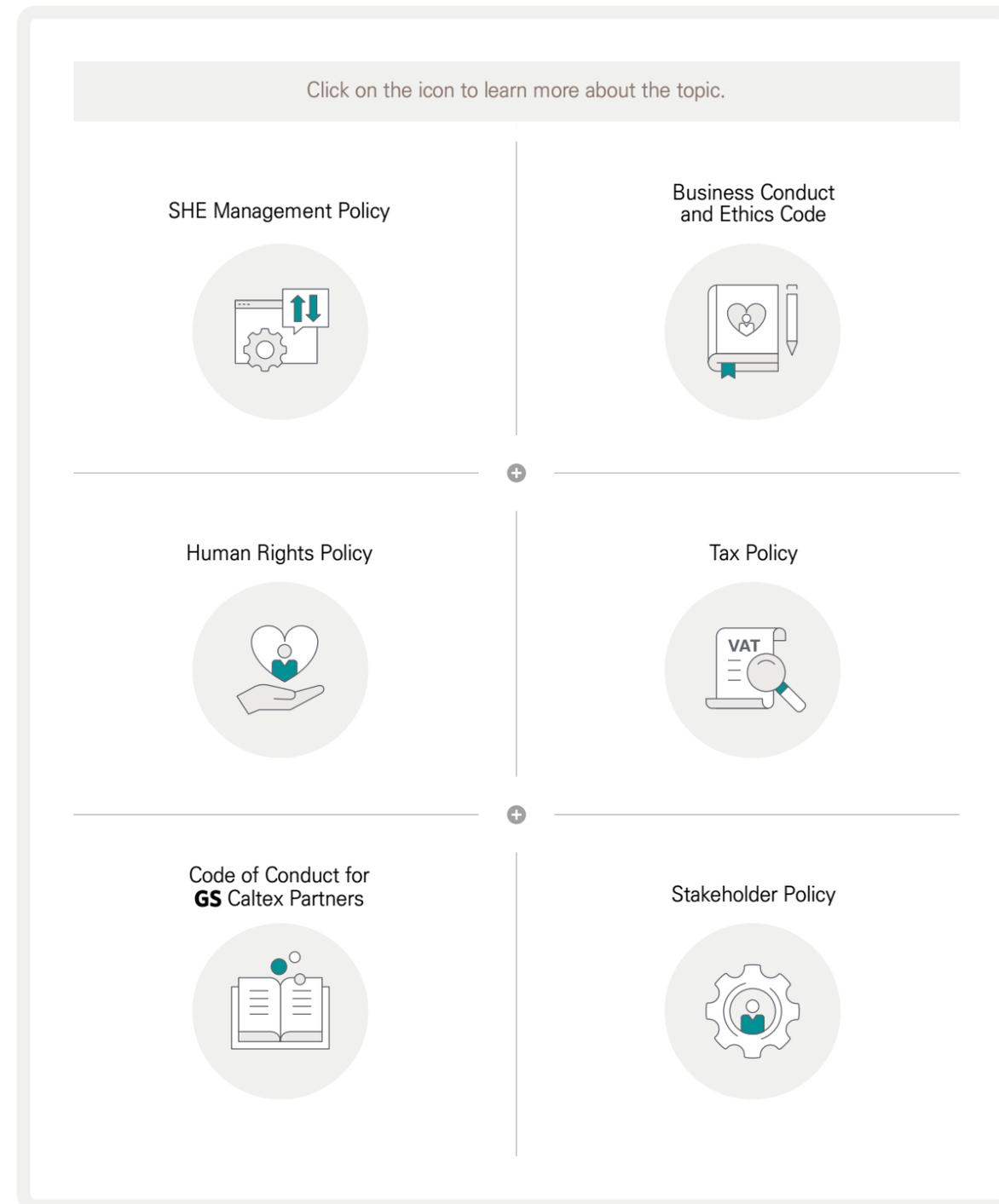
Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

Key ESG Policies



Third Party Assurance Statement

To : The Stakeholders of **GS Caltex Corp.**

Introduction and objectives of work

BSI Group Korea(hereinafter "the Assurer") was asked to verify **GS Caltex's** '2020 sustainability report'(hereinafter "the Report"). This assurance statement applies only to the relevant information contained in the scope of the assurance.

GS Caltex is solely responsible for all information and assertion contained in the report. The responsibility of the assurer is to provide independent assurance statement with expert opinions to **GS Caltex's** executives by applying the verification methodology and to provide this information to all stakeholders of **GS Caltex**.

Assurance Standards and Levels

This assurance was based on the AA1000AS v3(2020) Assurance Standard and confirmed that the report is prepared in accordance with the Core Option of GRI Standards. The assurance level was based on the Type 1 that confirmed compliance with the four principles of AA1000 AP(2018) in accordance with the AA1000 AS and the Type 2 assurance that verified the quality and reliability of the information disclosed in the report.

Type 2 was verified for 302-1 Energy consumption within the organization, 302-4 Reduction of energy consumption, 303-3 Water withdrawal, 305-1 Direct(Scope 1) GHG emissions, 305-2 Energy indirect(Scope 2) GHG emissions, 305-7 Nitrogen oxides(NOX), sulfur oxides(SOX), and other significant air emissions, 306-2 Waste by type and disposal method, 306-3 Total number and total volume of recorded significant spills ,307-1 Non-compliance with environmental laws and regulations, 403-3 Occupational health services, 403-4 Health and safety topics covered in formal agreements with trade unions, 403-6 Promotion of worker health, 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships, 403-8 Workers covered by an occupational health and safety management system, 403-9 Work-related injuries, 403-10 Work-related ill health, 404-2 Programs for upgrading employee skills and transition assistance programs, 404-3 Percentage of employees receiving regular performance and career development reviews, 405-1 Diversity of governance bodies and employees, 405-2 Ratio of basic salary and remuneration of women to men among GRI Topic-specific Standards for domestic operations.

Scope of Assurance

The scope of assurance applied to this report is as follows:

- Based on the period from January 1st to December 31st, 2020 included in the report
- Appropriateness and consistency of processes and systems for data collection, analysis and review
- Major assertion included in the report such as sustainability management policies, strategies, objectives, business and performance
- Information related to material issues determined as a result of materiality assessment
- The following items were not included in this assurance
 - Financial information included in the report appendix
 - Other related additional information such as the website presented in the report

Methodology

As part of its independent assurance, the assurer has used the methodology developed to collect relevant evidence to comply with the verification criteria and to reduce errors in the reporting, and has performed the following activities:

- To determine verification priorities, review of materiality issue analysis process and verification of the results.
- System review for sustainability strategy process and implementation.
- Review the evidence to support the material issues through interviews with senior managers with responsibility for them.
- Verification of data generation, collection and reporting for each performance index.

Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

VALUE NO.1
Energy & Chemical Partner

GS Caltex 2020 Sustainability Report

Assurance Opinion

On the basis of our methodology and the activities described above, it is our opinion that

- The information and data included in **GS** Caltex’s report are accurate and reliable and the assurer cannot point out any substantial aspects of material with mistake or misstatement.
- The report was prepared according to the Core option of the GRI Standards

The assurance opinion on the four principles presented by the AA1000 AP(2018) is as follows

AA1000 AP (2018)

Inclusivity | Stakeholder Engagement and Opinion

GS Caltex has a stakeholder engagement process in which key stakeholders such as executives and employees, shareholders and investors, customers, suppliers, local communities and government participate. It was confirmed that key stakeholders’ expectations and various opinions are collected and the drawn agenda is reflected in decision-making on sustainability management.

Materiality | Identification and reporting of material sustainability topics

GS Caltex conducted international standard analysis, industry issue analysis, advanced company bench marking, media research, and stakeholder survey to derive economic, social, and environmental material reporting issues related to sustainability management, and determined priorities by measuring influence on business impact(Relevance) and stakeholder interest(impact), and reported a total of 10 material sustainability management topics.

Responsiveness | Responding to material sustainability topics and related impacts

GS Caltex established and implemented plans for each topic to appropriately respond to identified material topics in a way that reflects stakeholders’ expectations, and detailed response activities and performance on material topics were disclosed in the Sustainability Commitment in the report.

Impact | Impact of an organization’s activities and material sustainability topics on the organization and stakeholders

GS Caltex implemented the process to identify and evaluate the impact on organizations and stakeholders related to material topics, and from a sustainability perspective, the impacts determined on material topics were disclosed in the report.

Key areas for ongoing development

To the extent that the results of the verification are not affected, the following comments were made.

- Material issues are reported extensively and the issues deemed material generally matched our findings on **GS** Caltex’s materiality based on our review. responsiveness could be improved by further engagement with local community and non-governmental organizations, and integrating the outputs of stakeholder engagement into the decision-making and the development of sustainability strategies.
- It is recommended to establish a system to collect and manage performance data for each area of economy, society, and environment on a regular basis to manage performance against targets on a regular basis, and to integrate it with the internal audit process for data reliability management.
- In each area of the report, relatively positive aspects are explained and efforts to further develop are expressed. At the same time, it will help to improve the balance of reporting if issues with poor performance are identified and specific plans for resolving them are specified.

Statement of independence and competence

The assurer is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with almost 120 years history in providing independent assurance services. No member of the assurance team has a business relationship with **GS** Caltex.

We have conducted this verification independently, and there has been no conflict of interest. All assurers who participated in the assurance have qualifications as AA1000AS assurer, have a lot of assurance experience, and understand the BSI Group’s assurance standard methodology.

Evaluation against GRI ‘In Accordance’ Criteria

The assurer confirmed that this report was prepared in accordance with the GRI Standards Core Option and the disclosures related to the following Universal Standards and Topic-specific Standards Indicators based on the data provided by **GS** Caltex.

[Universal Standards]

Organizational Profile(102-1~13), Strategy(102-14), Ethics and Integrity(102-16~17), Governance(102-18 & 102-20), Stakeholder Engagement(102-40 to 44), Reporting practice(102-45 to 56), Management Approach(103-1 to 3)

[Topic-specific Standards]

- Economic : 201-1, 202-1~2, 203-1, 205-2, 205-3, 206-1
- Environmental : 302-1, 302-4, 303-3, 304-1, 305-1, 305-2, 305-7, 306-2, 306-3, 307-1
- Social : 401-1~2, 402-1, 403-1, 403-3~4, 403-6~10, 404-2~3, 405-1~2, 406-1, 408-1, 409-1, 411-1, 412-1, 413-1, 414-2, 416-2, 417-2~3, 418-1, 419-1



15 July 2021

K. S. Song
BSI Group Korea, Managing Director



Overview

2020 Core Issue

Sustainability Achievements

Key Data & Performance

Appendix

Materiality Assessment

Global Standards & Initiatives

Key ESG Policies

Third Party Assurance Statement

GHG Assurance Statement

External Sustainability Activities

GHG Assurance Statement

Statement of Third Party Verification of **GS** Caltex Corporation's GHG Emissions in 2020

Introduction

Korean Foundation for Quality(hereinafter 'KFQ') has been engaged by **GS** Caltex Corporation(hereinafter the 'Company') to independently verify its 2020 Report on Quantity of emitted Greenhouse Gas from places of Korea(hereinafter 'Inventory Report').

It is the responsibility of the Company's management to compile the Inventory Report and the emission quantity report by 'Scheme on the trading of Greenhouse Gas Emission Permits' run by the government of Korea and KFQ's responsibility is provision of opinions on the Inventory Report after verification according to ISO 14064-3 and national scheme.

Independence of Verification

KFQ has no conflict of interest with **GS** Caltex Corporation in terms of profit generation-related activities except providing third party verification service on the report. And we do not have any biased opinion on **GS** Caltex Corporation's stakeholders.

Verification Scope

KFQ's verification was focused on all of the greenhouse gas emission sources controlled by the Company's places of Korea.

Consideration and Limitation

Accuracy and completeness of emission data reported in the Report are subject to inherent limitations due to their nature and the methodology used determining, calculating and estimating such data.

Conclusion/Opinion

Based on verification process according to the ISO 14064-3, KFQ obtained reasonable basis to express the following conclusion on the greenhouse gas emission data in the Inventory Report.

- 1 The Company's 2020 Report on Quantity of emitted Greenhouse Gas was documented in accordance with 'Scheme on the trading of Greenhouse Gas Emission Permits(Notification No. 2020-245 of the Ministry of Environment)' run by the government.
- 2 According to materiality assessment on quantity of greenhouse gas emitted from every Company's places of Korea in 2020, material discrepancy is less than the criteria of 2% for an organization that emits more than 5,000,000 tCO₂-eq in accordance with 'Scheme on the trading of Greenhouse Gas Emission Permits'.

Report Year	Total Annual Emissions(tCO ₂ -eq)		
	Direct Emissions(Scope 1)	Indirect Emissions(Scope 2)	Total Emissions
2020.1.1~2020.12.31	6,100,541	1,688,245	7,788,786

* Sum of emissions per GHG and total emissions may differ. (Total emissions are the aggregate of rounded down emissions by business unit.)

May 1st, 2021

Korean Foundation for Quality(KFQ)

Ji Young Song



External Sustainability Activities

Membership in Major Associations and Organizations

Federation of Korean Industries(FKI)	FKI International Management Institute	Institute for Global Economics	International Air Transport Association
Korea Business Council for Sustainable Development(KBCSD)	Korea Economic Research Institute	Korea Enterprises Federation	Korea LPG Gas Association
Korea Lubricating Oil Industry Association	Korea Management Association	Korea Oil Association	Korea Petrochemical Industry Association
Korea Petroleum Association	Korea-Japan Economic Association	Korean Institute of Hazardous Materials	National Academy of Engineering of Korea
Seoul Chamber of Commerce and Industry	WEC(World Energy Council) Korea Energy Foundation	World Business Council for Sustainable Development(WBCSD)	World Economic Forum
Yeosu Chamber of Commerce and Industry	Yeosu Industrial Complex Environment Council	Yeosu Industrial Complex Plant Manager Council	Yeosu Industrial Complex Council Integrated Protection Council

Major Donee Organizations

Bright Youth	Catholic Archdiocese of Seoul Office	Community Chest of Korea	Good Neighbors International
GS Caltex Foundation	Gyeonggi Ansan Community Self-Sufficiency Center	Hope Bridge Korea Disaster Relief Association	Jeonghaeseosook
Jeonnam Arts High School	Korea Education Volunteer Group(Seed School)	Korea Foundation for Support of the Senior Citizen in Need	Korea Green Foundation
Korea Legal Aid Corporation	Korea Mecenat Association	Korea Progress Forum	Korean Institute of Chemical Engineers
School Violence Victims Family Association	Seorak High School	Ssangbong Community Welfare Center	The Korea Society
Yeodo Educational Institute	Yeonam Middle School	Yeosu City Senior Citizen Welfare Center	7th Maneuver Corps

About This Report

GS Caltex maintains active communications with stakeholders based on transparent disclosures about key economic, environmental, and social achievements. This Sustainability Report is the sixteenth issue since publications of the annual report began in 2006.

Period

This report covers the period from January 1, 2020 to December 31, 2020. For important quantitative results, we share data from the past three years(2018–2020) to enable comparative analyses. Newly disclosed quantitative and qualitative results are indicated as such. Information from the first half of 2021 is also included herein to ensure timely disclosure.

Scope

The scope of this report encompasses the **GS** Caltex Head Office, Yeosu Complex, and the company's other main domestic work sites. Some data covers the lubricant plant distribution centers, gas stations, and charging stations as well as both domestic and overseas branches and affiliates. The report makes a note of instances that fall outside the scope and include changes in the data.

Standards

The **GS** Caltex 2020 Sustainability Report was prepared in accordance with the core option of the GRI(Global Reporting Initiative) Standards and reflects an effort to incorporate diverse feedback through stakeholder engagement as per AA1000SES. Moreover, the issues in the report constitute core industry issues based on considerations of the Oil & Gas Sector Disclosure and SASB(Sustainability Accounting Standards Board). There are no significant changes in the scope, boundaries, or methodology compared to the previous report. In instances where the method of data collection changed, annotations indicate the data was updated to 2020 standards.

Assurance

This report was reviewed by BSI(British Standards Institution), a third party assurance provider, to ensure the objectivity and accuracy of the content and data. We also conducted a Type 2 assessment on specific sustainability performance indicators like water consumption, amount of waste generated, and air pollutant emissions(GHG, VOC). The assurance statements can be found in the appendix of the report.

Issued by | **GS** Caltex CSR Team
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I am your Energy  **GS** Caltex