

# Beyond The Limits

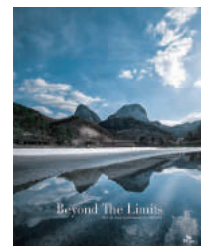
2019 SK GAS SUSTAINABILITY REPORT

# Beyond The Limits

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## About this report

- Reporting Information** SK Gas is publishing its 2019 Sustainability Report with the intent to publicize and actively communicate our major efforts and performance related to the pursuit of sustainability with our stakeholders. We will continue to utilize our Sustainability Report to listen to the opinions of our stakeholders and apply them to our business operations.
- Reporting Principle** This Sustainability Report was prepared in accordance with the core requirements of Global Reporting Initiative (GRI) Standards, the international guideline for sustainability reporting. It also complies with the TCFD recommendations and reflects the ten principles of UNGC (UN Global Compact) and indicators of the UN SDGs (Sustainable Development Goals). The financial information included in this report complies with the K-IFRS.
- Reporting Period** This report covers the activities of the company that occurred from January to December 2019. To enable a time series analysis of major sustainable management performance, the report includes data from the past 3 years (2017~2019). Also, the report includes information from before 2019 or from the first half of 2020 that may have important effects on the stakeholders.
- Reporting Scope** The domestic report scope includes all places of business (Pyeongtaek, Ulsan, and G.Hub, Central, Western, Eastern, and Jeju sales office) as well as the headquarters. The financial data in this report covers all consolidated companies. Some social and environmental data sets of a different reporting scope are indicated separately.
- Independent Assurance** To ensure reliability and quality of reporting contents, a third party assurance provider verifies the report. The results are presented on pages 86-87.
- Additional Information** SK Gas publishes Sustainability Reports in Korean and English to increase the accessibility of information for stakeholders and they are also available on our official website. (<http://eng.skgas.co.kr>)



### Cover Story

This is Mt.Mai, located in Jinan-gun, Jeollabuk-do, Korea. It represents SK Gas's will to conserve our beautiful nature through our sustainable management.

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SK Gas Social Value

(Unit: USD million)



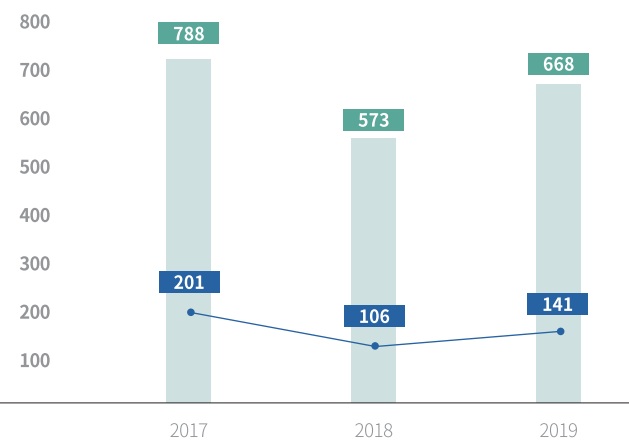
2018

2019

■ Economic ■ Business ■ CSR

Earnings Before Tax & Market Capitalization

(Unit: USD million)



2017

2018

2019

■ Earnings before tax ■ Market capitalization (as of closing price at the end of year)



SK Gas strengthens the competitiveness of its LPG business as the core business, and pursues the innovation of the business model to maintain continuous growth.



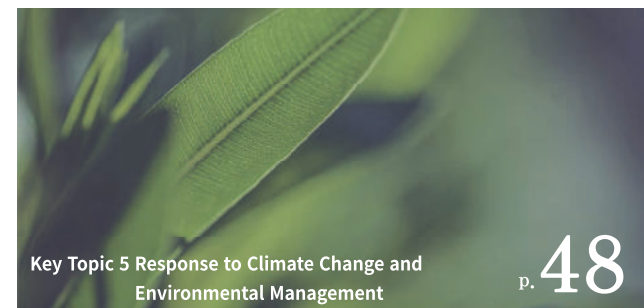
We are strengthening our business portfolio to become an Eco Energy Total Solution Provider.



We are contributing our best efforts toward ensuring the health and safety in the workplace for our employees. We are further contributing to the safety of our suppliers and local communities.



By practicing ethical management, we aim to pursue the happiness of diverse stakeholders and to continually contribute to the improvement of our society and economy.



We practice environmentally friendly business operations to actively respond to domestic and international climate change issues and to contribute to the happiness of all members of our society.

SK Gas has designated the five most important issues as the core subjects of its sustainability management in 2019, thus ensuring that the company's strategic direction and execution activities are reported in detail.

## CEO Message

“We will return a clear sky to tomorrow’s generation.”



Dear respected stakeholders,

I would like to sincerely thank you for your continuous attention and support for SK Gas. I am most pleased to announce the publication of SK Gas's 2019 Sustainability Report, which is the first time since its establishment.

As a company specializing in LPG, SK Gas has grown together with our stakeholders to become the 'No.1 LPG Player' in South Korea since its inception in 1985. Moreover, to actualize the vision of becoming a 'Global Top-Tier Eco Energy Solution Provider' in the global market, we strive to strengthen the competitiveness of existing businesses while simultaneously expanding our business portfolio. Furthermore, SK Gas identifies its goals for corporate management as not only the creation of economic value but the production of social value to meet the demands of various stakeholders that share close relationships with SK Gas and so that we remain a sustainable business. Social value includes the indirect contribution toward the national economy such as employment, dividend, and tax, effects of corporate contributions to social welfare, and all values that arise from resolving environmental and social issues.

**I would like to discuss the strengthening of the competitiveness of our LPG business and the expansion of our business portfolio.**

SK Gas is currently actively utilizing Smart LPG autogas stations, a system that optimizes deliveries and the filling station infrastructure in order to secure continuous competitiveness in the LPG industry. We are also pursuing the expansion of demand through industrial demand development, LPG vehicle supply expansion, and increased deployment of the small bulk supply system. Globally, SK Gas is focusing on expanding the global trading business by making the most of the global bases in Singapore and Houston, while strengthening its profit stability through the operation of a risk management system.

In the gas chemical industry, SK Gas successfully entered the propylene production business, which utilizes LPG (propane) as a raw material, allowing us to participate in the polypropylene production business, a process that uses propylene as a raw material. When the polypropylene production facility begins its operation in 2021, SK Gas would have completed the vertical integration of its gas chemical business. Moreover, we have decided to construct a propylene production facility together with a local partner in Saudi Arabia, thereby entering the global gas chemical market. In the power generation industry, SK Gas is currently preparing for the construction of an LPG/LNG combined cycle power plant, and it is our aim to expand our business portfolio to include the power generation business. SK Gas will be further advancing into the LNG business through the direct importing of LNG for power generation and providing the imported LNG through an LNG terminal that is currently being constructed as a joint venture.

**Let me now discuss our business results for 2019 and how we plan to secure business stability.**

SK Gas's 2019 economic value creation was KRW 4.931 trillion (USD 4.259 bil.) in revenue, KRW 189.6 billion (USD 164 mil.) in operating profit, and KRW 154.1 billion (USD 133 mil.) in net profit for the term. While year-on-year revenue decreased, our operating profit increased by KRW 86.6 billion, and our net profit has increased by KRW 98.7 billion. Through a steadfast profitability-focused business strategy, we have achieved high year-on-year financial results in both the domestic and international LPG business, as well as the gas chemical businesses. Moreover, our social value creation was measured at KRW 209.5 billion (USD 181 mil.), and this has increased by KRW 59.8 billion compared to the previous year. The most meaningful part of this is that we have contributed to the reduction of fine dust by supplying LPG vehicles that run on sustainable LPG fuel. Additionally, social value creation is being managed from an internationally recognized perspective by utilizing UN's Sustainable Development Goals (SDGs).

It is very difficult to predict how the COVID-19 outbreak, which began in early 2020, may unfold and it is increasing the uncertainties in managing our business. Therefore, the important thing for us in our current circumstance is to secure stability in the management of our business. To do this, SK Gas is minimizing risks through the analysis of possible scenarios and actively responding to the changes at hand. In areas of new businesses linked to the expansion of our business portfolio, we are cautiously executing investments in phases, after careful consideration of factors such as financial solvency.

Dear esteemed stakeholders,

SK Gas's business goal is to maximize stakeholder happiness. Through the publication of this sustainability report, we wish to reveal the details of how the company is working to achieve its goals and how close we are to achieving them in a transparent manner. I humbly ask for your continued support and attention.

Thank you.

June 2020

Yoon, Byungsuk CEO of SK Gas



# Company Profile

Global Top Tier  
Eco Energy Total  
Solution Provider

We create the  
Future of Energy

## General Status

As at December, 2019

Name of Company	SK Gas Co., Ltd.
Type of Business	Wholesale business of gaseous fuels and related products
Headquarters Address	ECO Hub, 332 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Date of Establishment	Dec. 20, 1985
Employees	467 persons
Net Income	KRW 154.1 billion (USD 133 mil.)
Revenue	KRW 4 trillion 931.1 billion (USD 4.259 bil.)
Total Assets	KRW 4 trillion 82.4 billion (USD 3.526 bil.)

## Business Area

**Domestic LPG Marketing**  
Through the strategically located LPG Import Terminals in Ulsan and Pyeongtaek and an extensive sales distribution network that spans across the country, we supply clean LPG fuels to households and businesses, as well as for vehicle and industry use, and for downstream petrochemical processing. We are also continually developing new demand of clean LPG like LPG fuel power plant, LPG fuel cells, and etc.



**Global LPG Trading**  
By leveraging advanced trading techniques and global networks acquired through our extensive LPG trading experience of 35 years, we can combine our unique product offering to fulfil the bespoke requirements of our clients in each region in terms of product quality, price, shipping, and other services with securing LPG products from the Middle East, North America and Africa. We are now leading the global LPG trading market.



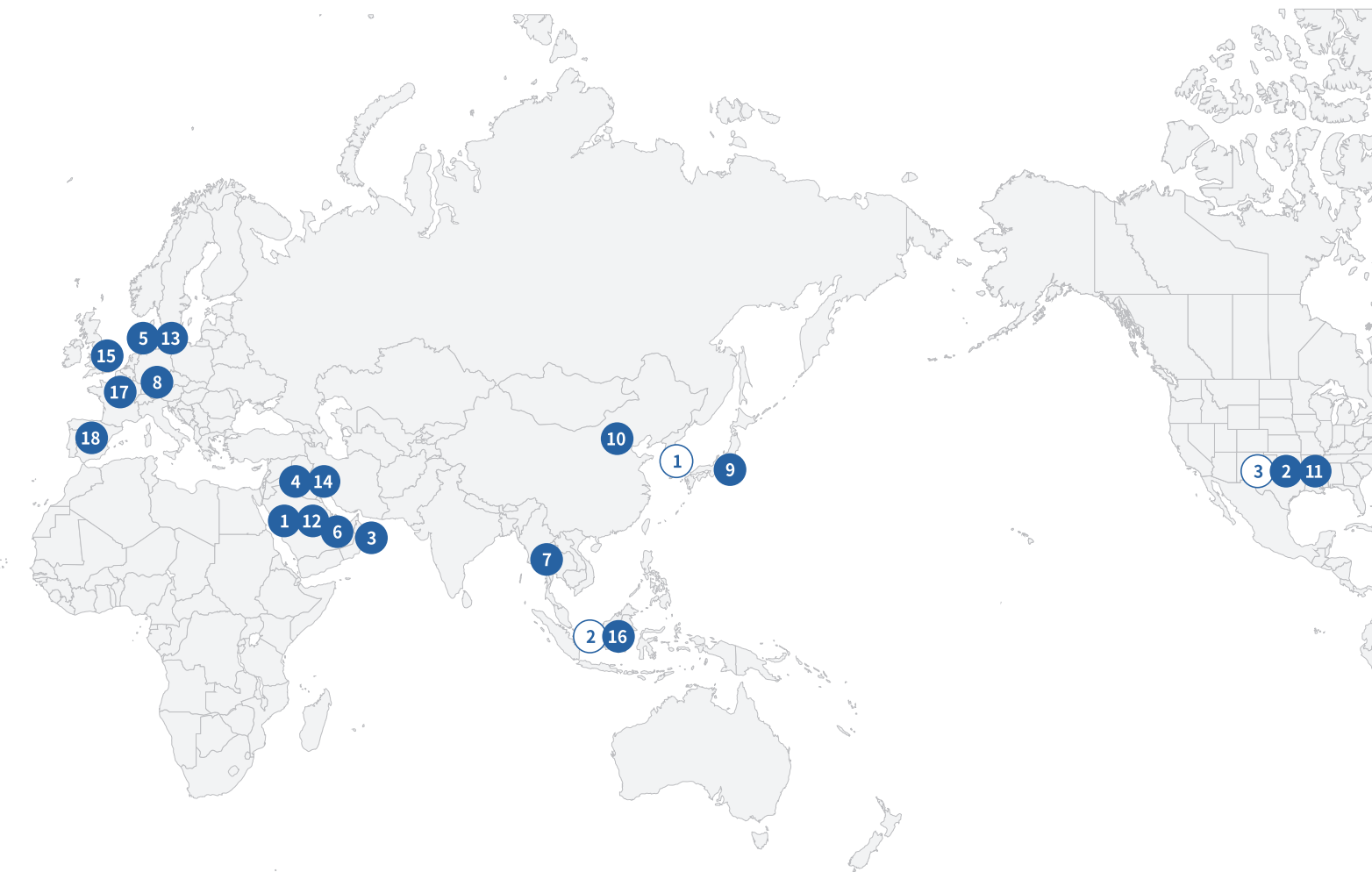
**Tank Terminal**  
Through a storage capacity of 490 thousand KL as a class-59 tank with a 100 km full-length pipeline network, 3-tier dock, and 4 bay land shipment facility at the lubricant tank terminal located beside the Ulsan LPG Import Terminal, we handle 2.5 million KL of raw material and products annually. With our continual emphasis placed on reliability and safety since its establishment, we take pride in our unparalleled professionalism and efficiency in the lubricant-product storage tank business.



**Gas Chemical**  
After successfully entering into the PDH (Propane De-hydrogenation) business, where we use LPG as a raw material to manufacture propylene, we hold a world-class standard of operating technology. When the PP joint factory, which forms the downstream segment of the PDH business, is completed in May 2021, we would have completed the vertical integration of the 'propane-propylene-polypropylene' value chain.



**LNG/Energy Generation**  
The world's first LPG/LNG combined cycle power plant is on track to being fully operational by the end of 2024. We aim to grow into a comprehensive, multi-utility supplier of a variety of energies – including LPG, LNG, electricity, and steam – by integrating our LNG import terminal with the LNG import business.



## Global Network and Partnership

SK Gas is pursuing aggressive growth through its partnerships with leading global businesses. The global LPG trading business operates local subsidiaries in Singapore and Houston, USA. While securing safe and competitive LPG products through partnerships with major exporters in the Middle East and North America, we are also building supply partnerships with global energy trading businesses, as well as major energy companies in South East Asia. As for the gas chemical industry, we have established joint venture partnerships with state-run enterprises in Saudi Arabia and Kuwait, and are fully utilizing our expertise in PDH operation in the participation of the construction of a PDH plant, which was awarded by the global chemical company, INEOS. In addition, we have established a joint venture partnership with PolyMirae, whose major shareholder is the global chemical company, LyondellBasell, to construct a polypropylene (PP) factory in Ulsan. As for our LNG/terminal business, we have formed a joint venture partnership with the Korea National Oil Corporation and Singapore's MOL Chemical Tanker. On the energy efficiency front, we have partnered with France's Metron and Spain's Optimitive for ongoing projects.

### Domestic Network

① Korea	Headquarters	G.Hub (Tank Terminal)
	Ulsan Terminal	Pyeongtaek Terminal
	Eastern Branch	Central Branch
	Jeju Branch	Western Branch

### Overseas Network

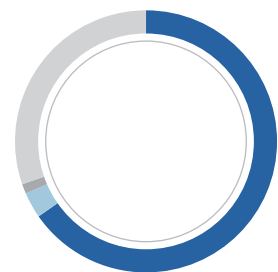
- ② Singapore Subsidiary
- ③ U.S. Houston Subsidiary

### Overseas Partner

LPG Trading business	Oil-producing country			
	① Saudi Arabia Aramco	② U.S. Enterprise, Phillips 66	③ UAE ADNOC	④ Kuwait KPC
Petrochemical business	Trading firm			
	⑤ Netherlands Trafigura, Vitol, Shell	⑥ Qatar QP	⑦ Thailand PTT	⑧ Switzerland Glencore
	⑨ Japan Astomos	⑩ China SINOPEC	⑪ U.S. Chevron	
LNG/Energy	⑫ Saudi Arabia APC	⑬ Netherlands LyondellBasell	⑭ Kuwait PIC	⑮ England INEOS
	⑯ Singapore MOLCT			
Energy solution service	⑰ France Metron		⑱ Spain Optimitive	

Based on the Shareholder List as at the end of 2019

## Shareholder Status



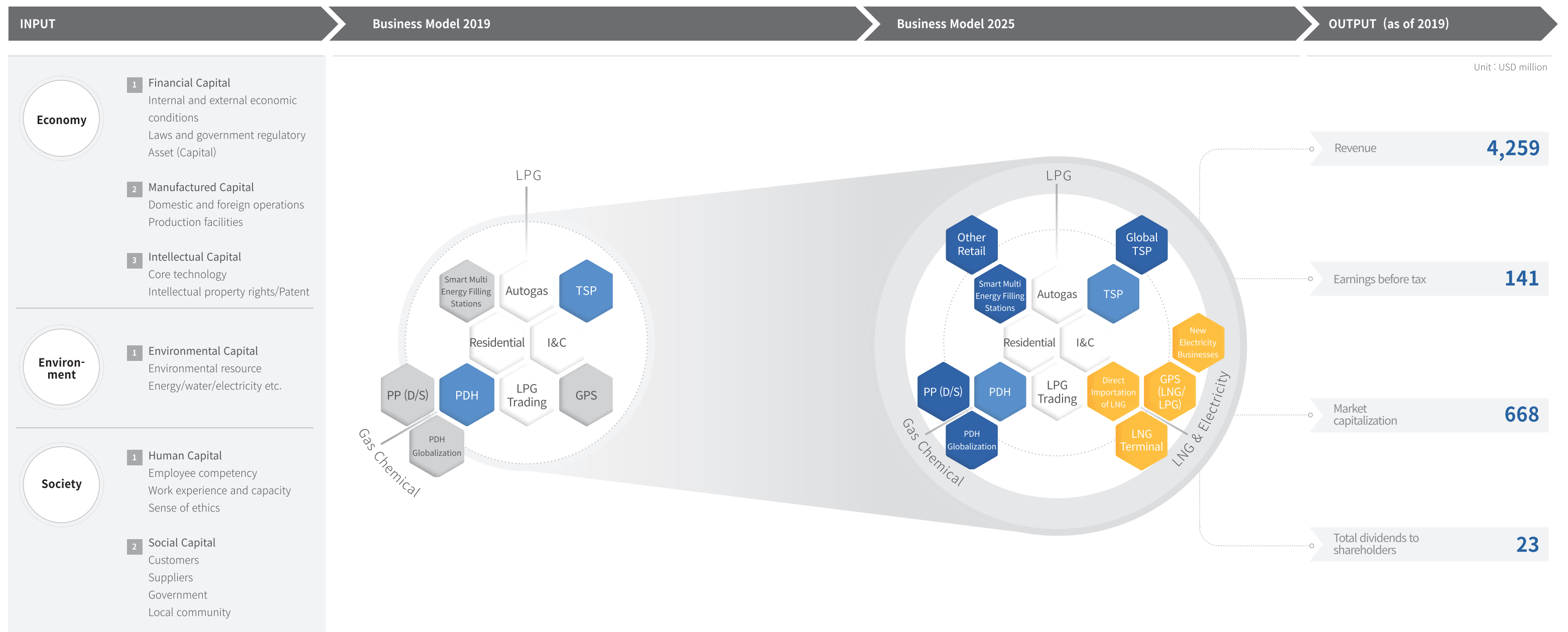
■ SK Discovery	65.3%
■ Treasury Stock	3.2%
■ Employee Stock Ownership Association	1.2%
■ Others	30.3%

# Business Portfolio

For the past 35 years, SK Gas has strived to provide a stable supply of LPG, which has been considered a fuel of the common people, even amidst difficulties of the national economy and in times of skyrocketing global oil prices. Now, LPG is marking its place as a clean energy beyond its traditional recognition as the fuel of the common. We are expanding our business areas to promote the use of eco-friendly LPG fuel by anyone, anywhere.

Our business areas have expanded from supplying homes and restaurants with cooking fuel to industrial and automotive fuel and to LPG power generation and LPG fuel cells. Furthermore, the use of LPG is not limited as a fuel, but it is also utilized in producing materials required for laptops and automobiles, thereby stretching into the plastic raw material market. With the help of new technology, SK Gas is pushing the limits of energy and leading the change in our industry.

## Beyond The Limits





Business Area 1

# Eco Station for the sustainable future

The future of Autogas stations that SK Gas aims to realize is an integrated platform which brings new experiences to daily life. We are enhancing the convenience of our Autogas stations by introducing facilities such as cafes, convenience stores, and premium car washes, as well as integrating an automated payment system based on Information and Communications Technologies. We are also diversifying by advancing into the hydrogen station business. SK Gas will continue to do its best to provide improved services to customers using clean, sustainable fuels.



1 Eco-friendly LPG filling



2 Premium car wash



3 Convenience store



4 Hydrogen fueling



SK Filling-Up Happy Autogas Station Nonhyun



Business Area 2

# Eco Materials for the sustainable life

SK Gas's gas chemical business has promoted sustainable living by producing environmentally friendly materials used in products that customers use in daily life. Polypropylene is one such resource recognized by Greenpeace as a sustainable material that does not emit endocrine disruptors. It is now widely used as an essential material in car bumpers, fiber toys, medicine, and many other products we use daily. SK Gas is pushing ahead to build a gas chemical business that produces propylene and polypropylene, which is used to produce plastic, with LPG.



1 Interior/exterior materials for vehicles



2 Materials for toys



3 Exterior materials for laptops



4 Materials for food containers





Business Area 3

# Eco Energy for the sustainable industry

SK Gas's energy business strives towards a vision of a clean environment where children can enjoy the outdoors without having to worry about fine dust. We will convert industrial fuel, which form the largest share of energy consumption, to eco-friendly energy. Furthermore, we are currently building an eco-friendly power generation business through the adoption of a LPG/LNG combined cycle power plant. SK Gas also aims to reduce energy consumptions by providing energy efficiency solutions based on digital technology.



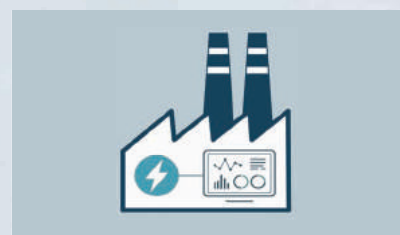
LPG/LNG combined cycle power plant



LNG terminal



Renewable energy



Energy efficiency solutions





# Sustainability Fundamentals

- Sustainability Strategy
- Sustainability Management
- Key Sustainability Indicators
- Stakeholder Dialogue
- Materiality

## Sustainability Strategy - 01

### Global Top Tier Eco Energy Total Solution Provider

SK Gas continuously strives to push the boundaries of energy. We aim to discover new potential for energy beyond the traditional limits of LPG and create new values in sustainability that enrich our society.

**Mission** We Create the Future of Energy

**Vision** Global Top Tier Eco Energy Total Solution Provider

- Strategy**
- |  |   |
|--|---|
| <b>1</b> Corporate Transparency Centered on the Board of Directors                 | <b>2</b> Operation of High-Performance Organization               |
| <b>3</b> Eco Energy Solution to Respond to Climate Change and Reduce Air Pollution | <b>4</b> Pursuing Both Economic and Social Value (DBL Management) |

#### Corporate Transparency Centered on the Board of Directors

An outside director has been appointed as the chairperson to increase corporate governance transparency. We have also enhanced expertise by establishing an Audit Committee, Nomination Committee for outside directors, and a Sustainability Management Committee under the Board of Directors. Also, we have established a corporate governance charter for the execution of transparent management principles.

**DBL (Double Bottom Line) Management** We are innovating our business model into one that

is committed to creating social value alongside our pursuit to create economic value. We are strengthening shared growth with all our stakeholders by being committed to sustainable development and fulfilling interests of our stakeholders.

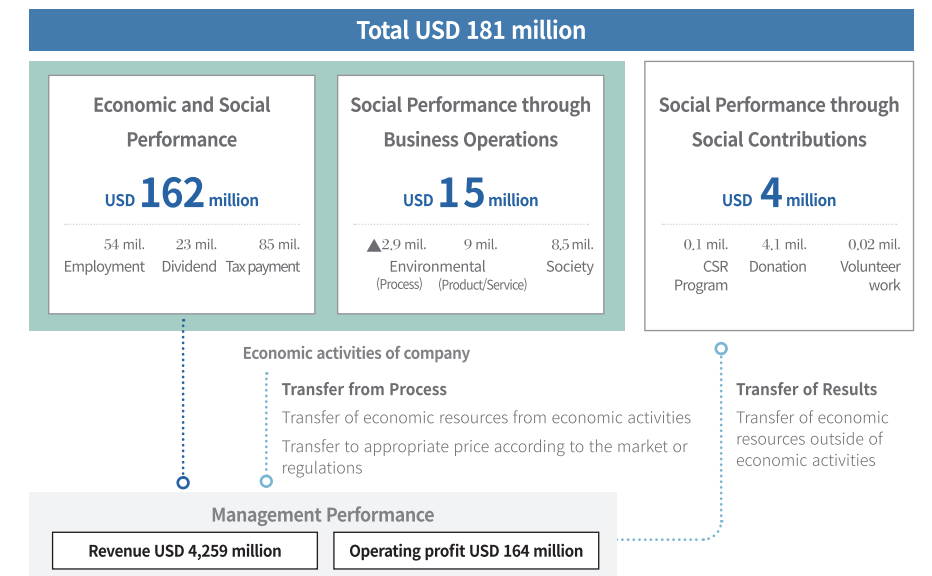
**Eco Energy Solution Provision** We work towards creating a clean energy environment so as to reduce the emission of fine dust and lower energy consumption through energy efficiency solutions and services. We are also actively contributing to the reduction of national greenhouse gas emissions by participating in renewable energy businesses.

**Operation of High-Performance Organization** We are creating an organization in which employees are able to perform and grow at the same time. The three factors that underscore our organization's excellent performance are clear objectives, autonomy, and teamwork.

#### SK DBL (Double Bottom Line)

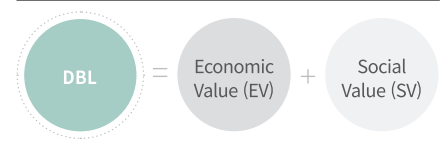
**Pursuing Both Economic and Social Value** We aim to transform our business to capture both economic value for shareholders and customers, as well as social value in response to the interests of our stakeholders. This transformation takes a proactive approach based on the efficiency and innovative potential of the company, rather than passively assuming 'social

### 2019 Social Value Performance





responsibility'. This will result in a new business strategy that creates social value. From the 'Single Bottom Line' of the past that only measures and manages economic values, we have begun to establish a 'Double Bottom Line' (DBL) that measures and manages both economic and social values.



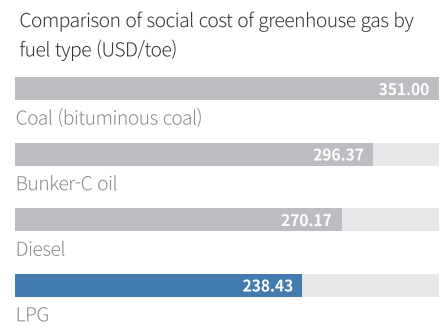
There is no standardized or unified standard for measuring social value. For the past few years, SK Group has been studying a methodology with academic experts, as well as policy makers and industry experts in the social business ecosystems since 2018. SK Gas has been measuring social value within the SK Group, according to the findings of such research.

By measuring social value, we have better understood the expanded role of the company as well as its value-add. Through communication with stakeholders about the social values that SK Gas focuses on, we are also examining and improving the performance of our core businesses. We believe that creating social value as well as economic value is the role of corporations that this era is calling for and that it is the way to achieve sustainable growth and the constant innovation of business models.

In 2019, the Social Value (SV) we created was a total of KRW 209.5 billion. This includes indirect economic contribution of KRW 187.8 billion, business and social performance of KRW 16.9 billion, and social contribution performance of KRW 4.8 billion. This is a KRW 59.8 billion increase from the 149.7 billion won in 2018. The area with the largest rate of increase was employment and tax payment from high management performance. The area of business and social performance also increased by 27% from the previous year.

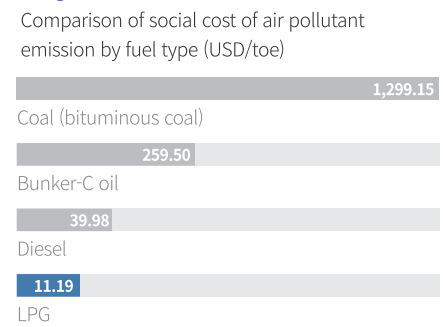
Our most meaningful achievement in operating an LPG-centered business is the reduction of air pollutant emissions. LPG has little air pollutant emission compared to other fuel options. Therefore, increased use of LPG brings about both economic value from an increase in sales as well as environmental value with the reduction of fine

dust and air pollutants. In 2019, we managed to reduce about KRW 10.4 billion worth of social cost that comes from air pollution by supplying LPG for automobiles. Moreover, we are continually expanding our business of supporting small and



mid-sized enterprises that use Bunker-C oil to transition to LPG which in turn significantly reduces air pollution in the local communities.

**Integration of SV and UN SDGs**



Source: Greenhouse gas emissions for each type of fuel (Ministry of Environment Notice 2018-73)  
Air pollutant emission factor for each type of fuel (National Institute of Environmental Research)  
Social cost as Eco-cost (Netherlands Delft University of Technology Eco-cost DB)

“ SK Gas’s long-term social objective is to reduce the social and health problems caused by fine dust and to mitigate the emission of greenhouse gases by expanding the use of eco-friendly energy, LPG. Moreover, we want to improve the well-being of communities around us by providing convenient, accessible, and safe energy to underprivileged communities and small industries that rely on fossil fuels due to geographic and structural constraints. We further aim to shape an industrial ecosystem where front- and back-end suppliers of LPG businesses and local communities can achieve healthy growth together. At the same time, we also wish to build a happy corporate culture among all our employees by internalizing SV mindset and through activities that genuinely create a positive social impact.

SK Gas will continually increase the social performance of its various business arms while enhancing economic social performance such as increased revenue and creation of new jobs through the fuel conversion to eco-friendly LPG, the strengthening of its energy efficiency solution business, and the successful operation of the LNG & Power generation business. Furthermore, we plan to continually increase our contributions toward public welfare through active collaborations with social enterprises, community volunteers and fundraising activities by the corporation and its employees.

SK Gas will keep social objectives as the heart of its SV activities. Recently, SK Gas supported employees and local communities, who were facing difficulties arising from COVID-19, by providing them with daily necessities. We also strived to prevent the spread of the virus among suppliers, and closely monitored the health of all tank-lorry drivers. SK Gas continues to strive towards maximizing its social value through meaningful ways.”

Lee, Haewon  
Head of SK Gas Corporate Support Division



As a member of the international community, we support the UN SDGs (Sustainable Development Goals) that are the common goals of the world to solve humanity’s universal problems as well as its environmental, economic, and social issues. We strive to integrate them with our company’s social values.

	<b>No Poverty</b> Eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day		<b>Zero Hunger</b> End hunger and ensure access by all people to safe, nutritious, and sufficient food all year round
	<b>Good Health and Well-Being</b> Reduce the global maternal mortality ratio to less than 70 per 100,000 live births		<b>Quality Education</b> Ensure that all children complete free and quality education leading to effective learning outcomes
	<b>Gender Equality</b> End all forms of discrimination against all women and girls everywhere		<b>Clean Water and Sanitation</b> Achieve universal and equitable access to safe and affordable drinking water for all
	<b>Affordable and Clean Energy</b> Ensure universal access to affordable, reliable, and modern energy services		<b>Decent Work and Economic Growth</b> Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7% gross domestic product growth per annum in the least developed countries
	<b>Industry, Innovation, and Infrastructure</b> Develop infrastructure to support economic development and human well-being, with a focus on affordable and equitable access		<b>Reduced Inequalities</b> Progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average
	<b>Sustainable Cities and Communities</b> Ensure access for all to adequate, safe, and affordable housing and basic services and upgrade slums		<b>Responsible Consumption and Production</b> Implement the 10-year framework of programs on sustainable consumption and production, with all countries taking action
	<b>Climate Action</b> Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries		<b>Life Below Water</b> Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
	<b>Life on Land</b> Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, including forests, wetlands		<b>Peace, Justice and Strong Institutions</b> Significantly reduce all forms of violence and related death rates everywhere
	<b>Partnerships for the Goals</b> Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection		

# Sustainability Management -02

## Management System for Sustainability Management

SK Gas has a management system that inspects, manages, evaluates, and monitors issues relating to sustainability at all times. We perform annual company-wide inspections based on our sustainability management standards and work on areas that fall short by establishing plans for improvement, which are executed after being reported to the Sustainability Management Committee under the Board of Directors. In addition, in order to maintain an objective view on our level of Sustainability Management, we have set up a monitoring and evaluation system from a third party perspective.

### Establishment of a Sustainability Management Committee within the Board of Directors

We built an organization that focuses on the completeness of the decision-making structure and professionalism towards execution for systematic sustainability management.

In March 2020, we established a 'Sustainability Management Committee' within the Board of Directors for responsible decision-making of sustainability management. The Sustainability Management Committee is responsible for making decisions that pertain to establishing and executing the company's sustainability management plan, as well as evaluating its performance. It comprises of three committee members and the chairperson is an outside director, Lee Sang-gu. In addition, we also established SV Management Unit in 2019 to promote company-wide sustainability management practices. SV Management Unit is in charge of various tasks, including sustainability management and the pursuit of social value and CSR and also manages the Sustainability Management Task Force Team (TFT), which is composed of all departments of our organization.



## Risk Management

SK Gas prevents the incidence of risk by identifying the potential risks that may occur during business operations upfront and systematically managing them when they arise.

When such risks occur, we mitigate their negative impact by responding quickly according to protocol. Our risk management system covers non-financial risks, such as environmental and social issues and we also conduct materiality assessment through stakeholder engagement.

**Risk Management System** To mitigate the impact of risks, SK Gas is equipped with a company-wide system that is quick to respond to risks through the 'Prevention - Detection - Response' framework.

**Areas of Risk Management** We have classified the main risks that impact our business operations into three categories. The major areas that we manage are financial risks such as exchange rates, interest rates, and taxation; business risks including oil prices and international economic trends; and operation risks encompassing ethics, laws, safety, environment, society, and information security.



**Risk Management Governance** The Integrated Risk Management Committee convenes on a monthly basis and is made up of the CEO as the chairperson and the Heads of each business division department and Head of Planning as members. Risks such as human/physical damage, violation of law, and defamation which may arise from customers and stakeholders perspectives are examined in advance. Such risks that are primarily detected are promptly shared with and handled by the related executives and departments and the severity of major risks are discussed through high-level management meetings. Depending on the severity of the risk, they are reported to the Board of Directors.

**Post-Risk Response** If any kind of loss is anticipated due to the occurrence of risks, despite our stringent and proactive management, we make our best effort to minimize losses through our post-risk response system.

The post-risk response system is based on an 'accrual-basis principle' in order to respond quickly; mitigation management falls under the

responsibility of the department in which the risk has occurred.

To henceforth increase the effectiveness of our response, SK Gas is preparing detailed procedures which includes recognizing and reporting risks, assessing risks, responding and managing risks, and improving issues, as well as a risk management/response protocol that defines the role of each department.

**Emerging Risk** SK Gas continues to determine and manage potential risks that may affect its long-term business. We manage the company's most significant risks by closely monitoring and being highly responsive to changes in the international price of LPG, and trade fluctuations of derivatives for risk hedging. SK Gas also regularly looks into ESG (environmental, social, and governance) related risks, which are recently becoming more influential, so that the company's risks may be managed comprehensively.

## Expansion of External Evaluation of Sustainability Management

Our company's sustainability management is evaluated by the Korea Corporate Governance Service (KCGS) every year. Our combined rating for 2019 was B+. Our governance structure - where our independent Board of Directors primarily comprises outside directors - was rated A, while our social and environmental pillars received a B+ and B respectively.

After analyzing the insights from KCGS' report, SK Gas set short-, mid-, and long-term goals to tackle the areas for improvement. This report captures the details of our performance. Moreover, given the growing importance of environmental management, more companies are being evaluated with CDP (Carbon Disclosure Project). We are also planning to receive CDP evaluation from 2020.


















Potential Risk	Definition of Risk	Management Efforts
Risks of international LPG price fluctuation and profit/loss fluctuation of derivatives used for risk hedging	Possible profit and loss and price risks from price decoupling between overseas and domestic selling price, in the event of fluctuating international prices of LPG from international factors such as the plunge of oil price from geopolitical factors	Making effort to minimize exposure from price risks - Establishing/executing Risk Management Policy - Strengthening market intelligence (monitoring market and publishing internal reports) - Carrying out risk hedging with the use of derivatives - Managing profit and loss of derivatives transactions which have been set up for the purpose of avoiding price fluctuations
Operating business sites and safety risk	Operational risks that may arise from inadequate response to changes in internal and external business environments and related regulations (Occupational Safety and Health Act, Chemical Controls Act etc.) in the operation business sites and safety management	Securing safety within facilities of business sites and guaranteeing the safety of employees of SK Gas and suppliers - Establishing SHE (Safety, Health, Environment) Master Plan within the company - Educating personnel on SHE operations Appointing occupational health and safety manager and organizations for each business site
Risk arising from information asymmetry during communication with stakeholders	Possible risk from information distortion when there has been insufficient communication with stakeholders about important issues in business operation or changes in the external environment	Initiating timely communication and providing clear information to stakeholders - Regularly monitor major changes within and outside of the company



# Key Sustainability Indicators

# -03

SK Gas systematically selects and manages key indicators for Corporate Sustainability Management to achieve our long-term targets. Currently, some indicators are classified as input and performance indicators for corporate sustainability management. However, for the long-term, we plan to expand their definitions to include impact valuation indicators of SK Gas's social value creation.

Area	KPIs	Input	Output	Impact	Unit	2017	2018	2019	2020 Target	2025 Target	UN SDGs Linkage	
Clean Business	Innovation and growth of LPG industry			●	tons	7,888	7,508	7,391	7,590	8,800	 	
				●	tCO <sub>2</sub> eq	-	6,979	13,668	18,000	51,000		
				●	Households	45,712	60,032	71,302	78,400	94,100		
	Strengthening of business portfolio				●	tCO <sub>2</sub> eq	-	-	-	-	12,800	 
				●	Companies	-	-	-	5	94		
				●	tons	-	-	-	-	100,000		
	Response to climate change and environmental management	CDP global carbon business evaluation		●		Grade	N/A	N/A	N/A	N/A	A	 
		Total greenhouse gas emissions (Scope 1, 2)			●	tCO <sub>2</sub> eq	31,832	32,559	35,664	38,000	38,000	
		Total amount of energy use		●		TJ	571	600	616	630	650	
		- Total amount of energy use by fuel				tons	7,887	7,948	8,017	8,000	8,000	
		- Total amount of energy use by Electricity				MWh	16,940	19,493	19,596	20,000	20,000	
		Achievement of greenhouse gas reduction target			●	%	-	-	5.2	5.4	5.6	
		NOx emission			●	tons	18.14	18.14	18.14	18.00	18.00	
		SOx emission			●	tons	0.08	0.08	0.08	0.00	0.00	
		PM emission			●	tons	0.55	0.55	0.55	0.60	0.60	
Total volume of waste generated				●	tons	22.98	40.17	37.54	38.00	38.00		
Volume of hazardous chemicals generated				●	tons	0.0	0.0	0.0	0.0	0.0		
Violation of environmental laws and regulations				●	Cases	0	0	0	0	0		
Transparent business	Governance			●	Grade	B+	B+	A	A	A+	   	
				●	%	57.1	57.1	57.1	57.1	57.1		
	Expansion of ethical management			●	Cases	0	0	2	0	0		
				●	Hours/person	2.0	2.0	2.0	3.0	4.0		
	Configuration of human rights management system	Human rights impact assessment			●	Assessment	-	-	Corporate	Corporate		Corporate & business
Shared business	Contribution to local community			●	KRW 100 million	45.2	46.5	50.1	52.0	55.0		
				●	Hours/person	7.0	5.7	5.4	6.5	8.0		
	Win-win management		●			KRW 100 million	44.4	93.9	85.8	90.0	110.0	 
			●			KRW 100 million	0.0	0.0	0.0	3.0	3.0	
				●		%	0.0	0.0	0.0	5.0	15.0	
	Employee happiness	Average number of years of continuous service		●		Years	11.2	8.5	8.6	9.0	10.0	 
		Ratio of female executives		●		%	7.1	8.5	9.3	9.3	18.0	
		Ratio of disabled workers		●		%	1.8	1.2	3.1	3.1	3.1	
		Ratio of flexible work usage		●		%	0	100	100	100	100	
Ratio of industrial accidents			●		%	0.0	0.0	0.0	0.0	0.0		

\* Ulsan GPS combined cycle power plant, scheduled to operate in the 2<sup>nd</sup> half of 2024, will be managed separately.

# Stakeholder Dialogue -04

Through the recent amendment of the SKMS ("SK Management System"), SK Group has placed an emphasis on the happiness of stakeholders on its core business philosophy. SK has set its ultimate purpose to be the pursuit of employee happiness and recognizes that such employee happiness is only sustainable when stakeholders' happiness is pursued at the same time. SK Gas reflected this strategy in the company's articles of association through its general meeting with shareholders in March 2020 and further incorporated this strategy in its corporate governance charter.

In order to pursue stakeholders' happiness, SK Gas actively listens to and engages with its stakeholders. We identify all stakeholders who are affected by our business, conduct materiality assessments with them and incorporate the findings into our overall sustainability strategy. In addition, we keep abreast of the constantly evolving interests of our stakeholders through regular engagements.

### Channels of Stakeholder Management

Our major stakeholders are our customers, shareholders, employees, suppliers, and the community. By engaging with them on a regular basis, we are able to gather and analyze their diverse opinions. Some of our lines of communication with our customers include our official company website and the customer feedback page.

To engage shareholders, we utilize platforms such as General Meetings of the shareholders, performance presentation meetings, as well as domestic and international Non-Deal Roadshows (NDR) and Investor Relations (IR) meetings.

We engage our employees as internal stakeholders through management councils, CEO letters, CEO Happy Seed conversations, and town hall meetings, etc.

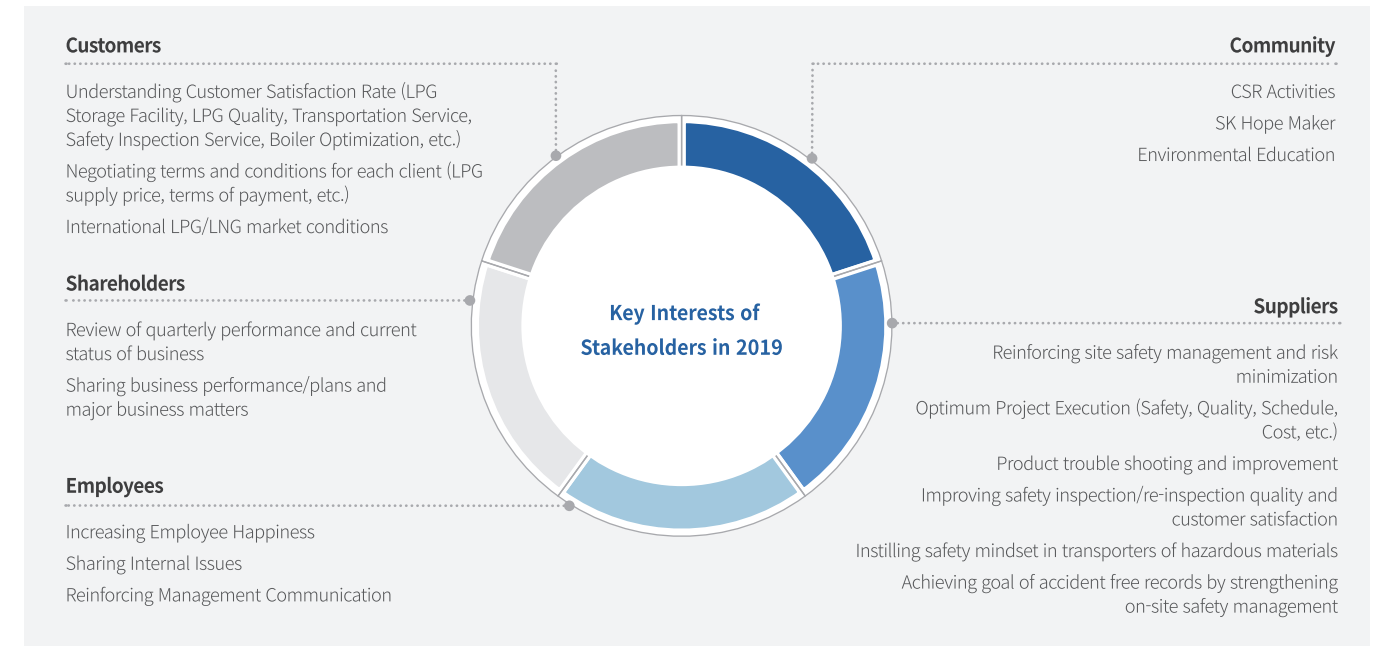
In addition, SK Gas holds conferences and workshops with our suppliers, who also have access to our supporting services through Withus, our 24/7 digital channel. Last but not least, we actively consult and collaborate with CSR organizations and local communities to engage with the wider society.

### Reflecting Opinions of Stakeholders to Management

SK Gas constantly listens to the interests and requests of our diverse stakeholders through multiple channels, and we do our best to reflect the feedback on our business operations. SK Gas does this by assigning related departments and managers with the responsibility of engaging with their designated groups of stakeholders. The department in charge collects the stakeholders' opinions and shares all findings in a transparent manner through management disclosures, general meetings of shareholders, business and sustainability reports, and our company website.

### Key Interests of Stakeholders in 2019

SK Gas maintains relationships with various stakeholders: customers, shareholders, employees, suppliers, and the community. As all of them have different needs, we take a personalized approach in our communication with them to cultivate healthy, long-lasting, trust-based relationships. Moreover, we take an inclusive approach by reflecting some of these core issues in our business operations. In 2019, we gathered information on the different needs of each group through diverse communication channels, and the details of the core issues raised by each group are as follows. We will strive to continually and systematically manage the diverse interests and requests of stakeholders and reflect them in our business operations to create new values.



### Communication Channels with Stakeholders

Stakeholders	Communication channel	Major topics per stakeholder	Main activities	
<b>Customers</b>	<ul style="list-style-type: none"> <li>Website, Naver Post, YouTube</li> <li>Surveys</li> <li>Registering customer feedback</li> <li>Channel for reporting matters related to ethical management</li> </ul>	<ul style="list-style-type: none"> <li>Innovation and growth of business</li> <li>Ethical management</li> <li>Customer happiness</li> </ul>	<ul style="list-style-type: none"> <li>Economic performance</li> <li>Response to climate change and environmental management</li> </ul>	<ul style="list-style-type: none"> <li>Sharing current status of company through announcements on main website</li> <li>Providing company news through Naver Post and YouTube</li> <li>Registering customer feedback/claims and company's response</li> <li>Registering and dealing with reports related to ethical management</li> </ul>
<b>Shareholder</b>	<ul style="list-style-type: none"> <li>General Meeting of shareholders, performance presentations</li> <li>Domestic/overseas NDR (Non-Deal Roadshow) and IR meeting</li> <li>1:1 meeting, wire/wireless consulting</li> </ul>	<ul style="list-style-type: none"> <li>Innovation and growth of business</li> <li>Economic performance</li> <li>Occupational health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening of business portfolio</li> <li>Risk management</li> </ul>	<ul style="list-style-type: none"> <li>Carried out NDR every quarter with institutional investors</li> <li>On-going IR meetings</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Management council</li> <li>CEO Letter</li> <li>CEO Happy Seed Conversation</li> <li>Town hall meeting</li> <li>Management By Walking Around</li> </ul>	<ul style="list-style-type: none"> <li>Innovation and growth of business</li> <li>Economic performance</li> <li>Customer happiness</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening of business portfolio</li> <li>Employment and human resources development</li> </ul>	<ul style="list-style-type: none"> <li>Holding management council meetings 4 times a year (where major points of improvement raised by employees are addressed)</li> <li>Holding CEO Town Hall Meetings 3 times a year (Town Hall Meeting for each Unit is also carried out once each quarter)</li> <li>Executives' visits to overseas/local business sites (at least once a quarter)</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>Collaborative CSR meetings (city/province and collaborating welfare institutes)</li> <li>Social contribution activities</li> </ul>	<ul style="list-style-type: none"> <li>Response to climate change and environmental management</li> <li>Ethical management</li> <li>Occupational health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Social contribution</li> <li>Human rights management</li> </ul>	<ul style="list-style-type: none"> <li>Carrying out projects that contribute to the local community</li> <li>Collaborating with social enterprises</li> <li>Protecting the ecosystem</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Withus online system</li> <li>Conference with suppliers</li> <li>Safety inspection workshop</li> <li>Providing information for shared growth</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Shared growth</li> <li>Innovation and growth of business</li> </ul>	<ul style="list-style-type: none"> <li>Ethical management</li> <li>Customers happiness</li> </ul>	<ul style="list-style-type: none"> <li>Operating channel to report matters related to ethical management</li> <li>Conference with SHE suppliers and improvement meetings, etc.</li> <li>Conference for individual suppliers according to business site (conference for safety inspection companies, transportation engineer conferences, etc.)</li> <li>Providing news on shared growth programs</li> </ul>



# Materiality

# -05

Conducting materiality assessments is vital in establishing a sustainability management strategy as well as understanding the relative level of interest by relevant stakeholders. By carrying out materiality assessments, a company can understand the areas of interest of internal and external stakeholders and utilize them in setting the strategy and goals for sustainability management to improve the sustainability of the company and the society. A materiality assessment was performed to determine the contents of the 2019 Sustainability Report and the sustainability issues that require future management. Through this process, we were able to confirm issues that stakeholders are most concerned about and what kind of impact these issues have on our business operations. The details of the materiality assessment are as follows.

## Materiality Assessment Process

**Step 1**

**Distinguishing Issues and Organizing Issue Pools**

We have analyzed the sustainability management standards based on GRI (Global Reporting Initiative) standards and extracted 574 pools of issues related to sustainability management. Our approach incorporated our annual report, media, industry and precedent analysis, and a thorough review of internal and external issues. We then clustered the data into 14 final topics based on their internal/external relevance, importance, and possibility of occurrence.

- International Standard Analysis : GRI Standards, DJSI, ISO 26000, TCFD, UN SDGs, etc
- SK Gas internal stakeholder issues review : Annual report, operating report, CEO New Year's address, and interviews, etc.
- External stakeholder issues review : Investors' opinion, policies and regulations, related industry report issues, media analysis, etc.

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**Step 2**

**Impact Analysis**

Of the 14 topics selected in Step 1, SK Gas undertook a comprehensive analysis of 'business impact analysis' and 'stakeholders' impact analysis'. In the review of the former, we consulted with subject matter experts and conducted an evaluation through the Sustainability Management Task Force. For the latter, we conducted surveys among employees and external stakeholders.

<ul style="list-style-type: none"> <li>· Stakeholder Impact Analysis</li> <li>We conducted an online survey with internal and external stakeholders to gather their opinions on sustainability management topics and analyzed their level of impact.</li> <li>Survey period: March 2nd - March 9th, 2020</li> <li>Number of Respondents: Total 404 people (Internal: 172 / External: 232)</li> <li>Questions: Level of importance of 14 sustainability management issues</li> </ul>	<ul style="list-style-type: none"> <li>· Business Impact Analysis</li> <li>In order to analyze the business impact of each topic on our company, we reviewed its relevance to our business strategy, the level of financial impact, and SV integration.</li> <li>Survey period: March 16th - March 20th, 2020</li> <li>Number of Respondents: Total 10 persons</li> <li>Questions: Relevance to business strategy (strategy, long-term goals, compensation perspective)</li> <li>Level of financial impact (level of impact on cost, profit, risk occurrence)</li> <li>Relevance to direction of SV (eco-friendliness, improvement of public life, shared growth and prosperity of the industry ecosystem, happiness of employees)</li> </ul>
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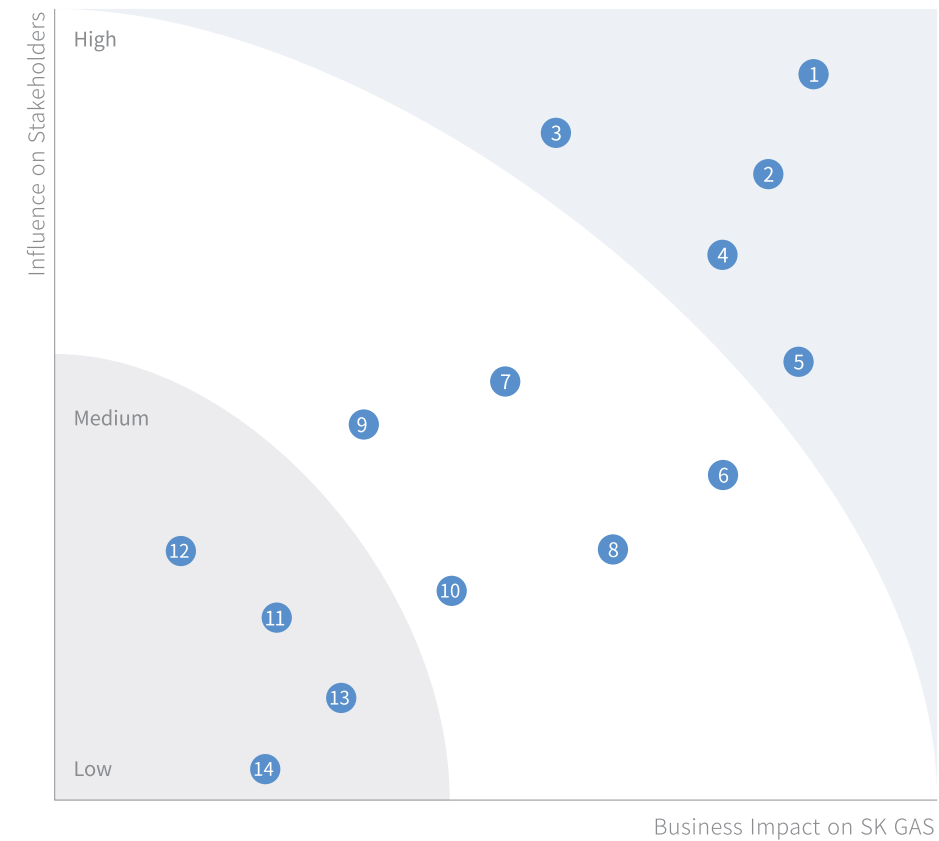
**Step 3**

**Prioritizing Issues**

We ranked the topics based on several factors such as the strategic importance of SK Gas's business and stakeholders' evaluation, and verified our assessment with a trusted third-party institute (Korea Management Certification). Among the final 14 topics, we have selected the top five key issues to be handled in detail in this report.

- Prioritization: Determining the priority of the 14 topics based on the results of evaluation on business impact analysis and stakeholder impact analysis.
- Decision-making for Content of Report: Final five key issues were selected based on GRI Standards and their relevance to our business operations.
- Third-party audit: The report was verified by a third-party institute (Korea Management Certification) to ensure transparency.

## Materiality Assessment Matrix



1. Innovation and growth of LPG business
2. Strengthening of business portfolio
3. Occupational health and safety
4. Ethical management
5. Response to climate change and environmental management
6. Economic performance
7. Risk management
8. Social contribution
9. Shared growth
10. Customer happiness
11. Engagement of stakeholders
12. Employment and human resources development
13. Human rights management
14. Governance

## Insights from the Materiality Assessment

Based on the materiality assessment results, the top priority of stakeholders in 2019 was the 'innovation and growth of LPG business.' Following this were other important sustainability management topics including 'strengthening of business portfolio,' 'occupational health and safety,' 'ethical management,' and 'response to climate change and environmental management.' It underscores that our stakeholders' most recent interests focused not only on the business of our company, but also on our social values and being socially responsible in our activities.

According to the assessment results, we have selected the top five topics to report on. We have made sure that each topic has been reported in detail by structuring SK Gas's management methods and major activities by the five materiality topics and other issues have been reflected throughout the report, so as to make sure that all important issues have been covered.

Materiality Topics	Employees	Customers	Shareholder	Suppliers	Local Community	GRI Topic	Page
Innovation and growth of LPG business	●	●	●	●		SK Gas (Internal Issues)	26
Strengthening of business portfolio	●	●	●	●			32
Occupational health and safety	●			●	●	GRI 403	40
Ethical management	●			●		GRI 102	44
Response to climate change and environmental management			●		●	GRI 300	48



UN SDGs Link



Key Topic 01

# Innovation and Growth of LPG Business

## Materiality Topic

The Government of Korea has been working on transitioning towards renewable energy as a medium to long-term goal. However, the ratio of energy from fossil fuels in the domestic supply of primary energy was over 84% as of 2019, indicating that our society's reliance on fossil fuel energy remains high. Despite the sustainability of renewable energy, the transition to renewable energy is slow due to cost factors and significant time and effort will still be required for a complete transition to renewable energy. Nevertheless, immediate measures still need to be established for fossil fuels with high air pollution and greenhouse gas emission levels

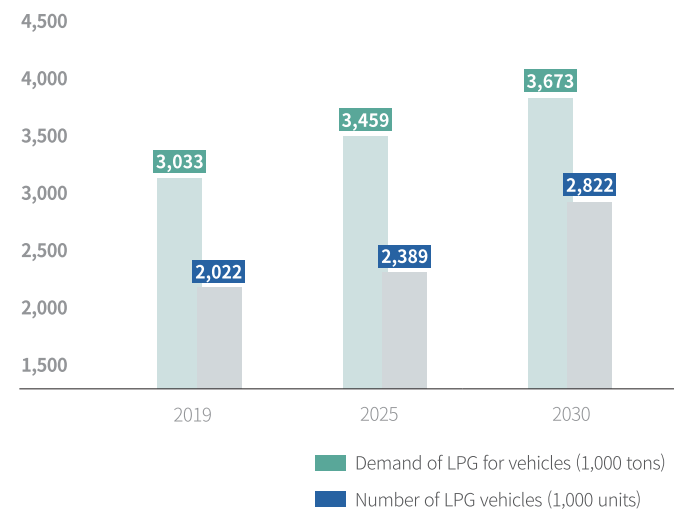
In comparison to other fossil fuels, LPG is an eco-friendly energy source and form of alternative energy that may be used immediately to significantly reduce air pollutants, especially fine dust and nitrogen oxide. Furthermore, as it is more convenient to store and deliver compared to LNG, LPG plays an integral part in the energy welfare of consumers who live in areas where city gas is not available and in providing consumers with a wider range of choices for their energy needs.

The total domestic demand for LPG in 2019 increased by 9.4% compared to the previous year. This is due to increased demand for raw materials of petrochemicals, such as propylene, as the international price of LPG became relatively lower compared to that of other types of feed ever since the global supply of LPG steadily increased following the shale gas revolution.

In addition, the demand for LPG vehicles has also increased, which is in line with the Government's eco-friendly energy policies. Some of the Government's initiatives to reduce fine dust emissions include providing subsidies for the purchase of 1-ton LPG trucks or LPG school buses, thereby accelerating the transition to LPG vehicles.

Since the amendment of 'Safety Control and Business of Liquefied Petroleum Gas Act' took effect in March 2019 and LPG usage restrictions were completely abolished, anyone is permitted to use LPG vehicles and we predict there will be a steady increase in the demand for LPG vehicles in the future.

Forecast of LPG Market for Vehicles



\* Source: Korea Energy Economics Institute (2018) 'Study on the Establishment of LPG Usage and Distribution Policy'

## Approach & Strategy

SK Gas is proactively dealing with the social impact of climate change due to greenhouse gas emissions and air pollution from fine dust and nitrogen oxide by expanding the supply of LPG, an eco-friendly energy source. We are also constantly striving to achieve economic growth by exploring and evolving our LPG business model by launching new businesses. In order to do so, we will enhance our value chain to allow consumers convenient access to LPG. We aim to accelerate this process by adopting digital technology.

## Social Value

SK Gas is creating social value by reducing air pollutants and greenhouse gas emissions through the expanded distribution of eco-friendly LPG. We carry out various support programs for the conversion of fuels used by demand centers that have no choice but to use traditional fossil fuels, as they do not have access to city gas pipeline networks, face economic constraints or environmental barriers.

In comparison to bituminous coal or crude oil, LPG fuel can decrease greenhouse gas emissions by 20-32% and air pollutants such as fine dust and nitrogen oxide by around 95-99%.

## 2025 Long-term Target

Target Area	2019	2025
Amount of air pollutants reduction through supply of LPG for vehicles	7,391 tons	8,800 tons
Amount of greenhouse gas reduction through industrial fuel conversion business	13,668 tCO <sub>2</sub> eq	51,000 tCO <sub>2</sub> eq
Improvement of LPG accessibility for energy disadvantaged groups (supplied amount of small bulk)	71,302 HH*	94,100 HH

\*HH: household



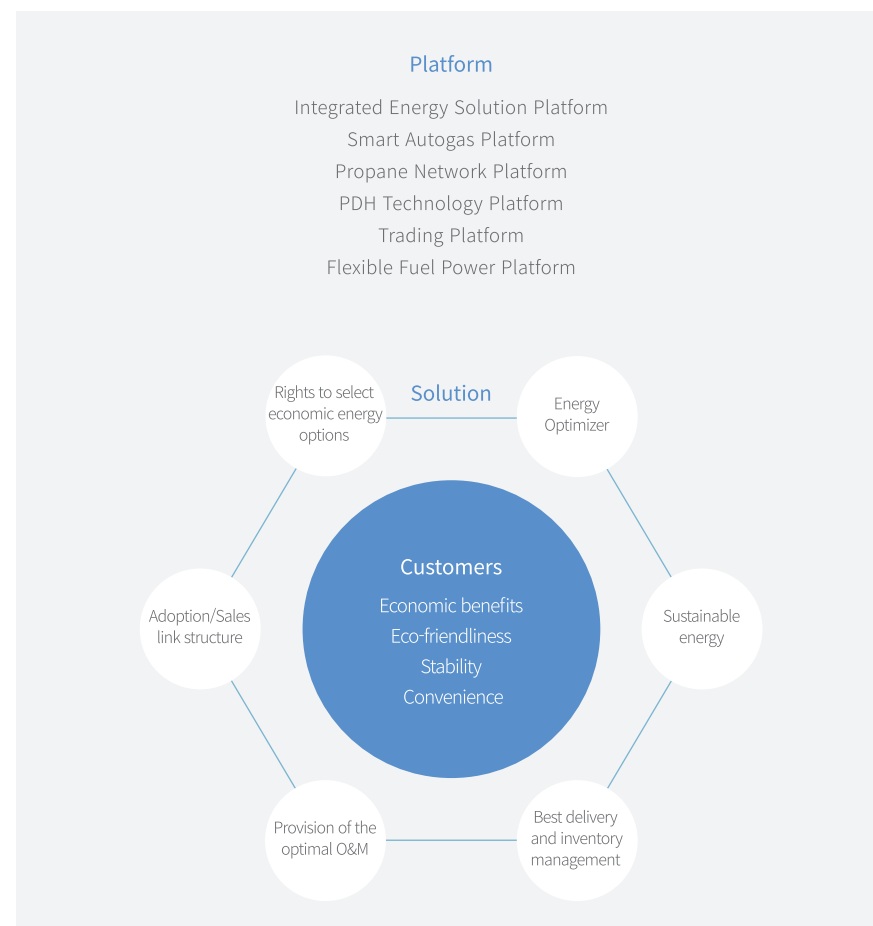
## Innovation of LPG Business Model

### Innovation of LPG Business Model

SK Gas's LPG Business is being transformed into a platform business model that provides solutions tailored to customer needs. In the march of digitalization following the fourth industrial revolution, many companies across various industries are unbundling and carrying out combinatorial innovation. Globally, companies are experiencing a decline in sales as many start-up companies come up with innovative ideas and companies with large-scale platforms have expanded their businesses through M&A to emerge as competitors in areas that are completely different from their existing businesses. The method of providing services has also gone beyond traditional means through the emergence of subscription services or O2O (Online to Offline) platform services. Amid all these changes, we are aiming to become a platform business that provides integrative energy solutions to our customers by strengthening and integrating various solution business models. 'The provision of customer value' through digital transformation will be an integral part of our transformation.



Filling-Up Happy Autogas Station Gwanggyo New Town



### Transformations of the Business Model of LPG Used for Vehicles

More consumers are choosing LPG for their vehicles as LPG has gone beyond being recognized as a common fuel to being an eco-friendly fuel that can help to alleviate the serious social issues such as fine dust. Moreover, following the abolition of the restrictions on using LPG vehicles in March 2019, Autogas stations have transformed from being places that simply supply LPG to becoming smart Autogas stations that proactively address customers' changing needs and benefit the digital age.

### Transformation into Futuristic Smart Autogas Stations

Autogas stations are changing into platforms that fulfill various customers' needs. Futuristic Autogas stations will create a more enjoyable and convenient customer experience from the point of filling, paying, collecting of benefits, and to the process of vehicle washing. We understand that customer requests differ according to the type of vehicle (SUV, 1-ton trucks, etc.), customer trends (mobile, no-contact services, etc.), the desirability of social value (sustainable, public good), and additional services (shopping, vehicle washing,

etc.). As such, our futuristic autogas stations will faithfully serve the unique requests of customers and provide customized services.

### Transformation into Sustainable Hydrogen Multi Energy Autogas Stations

The Government has plans to distribute 67,000 hydrogen-fueled vehicles and build 310 hydrogen autogas stations by 2022, in line with its integrative approach towards managing the levels of fine dust in the air. However, the construction of hydrogen autogas stations is proving to be rather tricky due to difficulties in identifying suitable locations and the high investment costs.

We are launching a hydrogen autogas business that provides hydrogen either by directly delivering to the site of production, or reforming LPG into hydrogen at LPG autogas stations. In November 2019, we installed a hydrogen filling facility at the 'Nonhyun LPG Filling Station' in Incheon, which has the capacity to fill 60 vehicles per day. This was done in successful collaboration with Hyundai Motor Company to launch an eco-friendly multi energy autogas station at which hydrogen, as well as LPG can be fueled.

### Filling-Up Happy Membership

We are transforming from being a wholesale business centered on distribution to becoming a retailer chosen by end-users. In order to better understand and serve the diverse needs of our consumer base, we are operating the 'Filling-Up Happy Membership' – an integrated program for LPG customer that can benefit from when filling at SK Gas and an additional 800 autogas stations affiliated with SK Energy. Consumers can subscribe to the 'Filling-Up Happy Membership' online or at autogas stations and are granted membership points immediately upon signing up. It can also

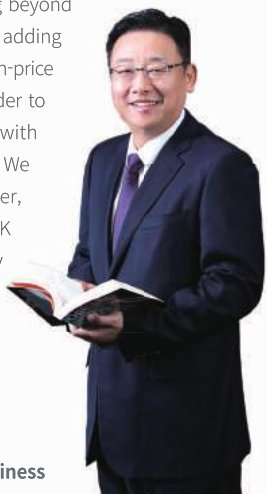


SK Gas Filling-up Happy Membership

“ Since the abolition of limitations on fuel usage, the use of LPG has expanded from being a commonly used fuel to eco-friendly fuel, also allowing the industry for LPG vehicles to reach an important phase in its sustainable growth. As consumer needs become increasingly diversified, SK Gas has gone beyond being a wholesale manufacturer that simply supplies products on a large scale to transform into a retailer that provides management solutions customized to consumer needs. For the successful execution of such changes, we take into consideration the location, plans, and systems of SK Gas in terms of our mobility business.

At the same time, we are continuing to innovate our business, in the form of transitioning to online business models and expanding our carbon emission reduction business. In terms of propane, we are going beyond price competitiveness to adding eco-friendliness to our non-price competitive factors in order to provide our consumers with new environmental value. We are growing into a retailer, true to the values of SK Gas as a clean energy company.

**Park, Chanil**  
Head of Eco Energy Business Division





be used for diverse services, such as paying and purchasing products using accumulated points. Moreover, we are continually providing various services by partnering with Hyundai Motor Company, Kia Motors, Renault Samsung Motors, mobile carriers, car rental companies, and credit card companies.

**Development of Autogas Technology**

We are investing in the development of LPG vehicle technology in order to expand our role in providing eco-friendly gas fuels in the fuel market for vehicles. In order to decrease carbon emissions through the improvement of the existing fuel efficiency of LPG engines, we have developed and commercialized Liquid Petroleum Injection (LPI) engines and are currently developing the next generation LPG Liquid Phase Direct Injection (LPDI) engines. Moreover, we have also been developing 1-ton LPG trucks and mid- to large-sized LPG vehicles, which are more environmentally friendly, as well as donut-shaped fuel tanks that allow for wider trunk space, increasing consumers' convenience.



**Innovation of Propane Distribution**

Around 5.68 million households or about 27% of the total number of households use LPG for household or commercial use. A significant amount of the delivery of propane has gone from cylinder delivery to bulk lorry delivery and we are also leveraging the latest digital technology to allow innovation in our distribution of propane.

**Transition to Bulk Lorry Delivery**

The delivery of propane by bulk lorries differs from the traditional method of delivery by cylinders. Propane is delivered by bulk lorries into the small bulk tanks installed at the end-users' sites and allows for a more reliable and convenient supply of propane to our end-users. Moreover, supplying through bulk lorries has made it possible to expand the service area of delivery trucks, which in turn reduces transportation costs. SK Gas leverages digital technologies for the remote management of stock at the end-users' sites and strengthens the level of stability of supply. We are also preparing to innovate distribution systems to supply LPG to demand centers in a more stable and convenient manner.

**Establishment of Integrated Propane Platform**

We are currently working to create a platform where all businesses along the propane supply chain can work together. The platform allows sharing by all stakeholders to promote the use of propane, energy and sustainable services.

95.7% ↓

Replacing Bunker-C oil with LPG dramatically decreases the amount of air pollutant emissions.

“ We aim to continue our growth by transforming into a platform business that provides integrated energy solutions amidst this ever-changing economic environment. The integrated business platform currently being launched provides the best solutions for our diverse customers by understanding the inconvenience they experience when using energy. In order to do this, we are planning to design, establish, and operate the overall logistics of primary energy – from its use, storage, transportation, use, and afterlife management – based on the customers' unique circumstance and demand. Also, by collaborating with overseas LNG suppliers through the biggest private LNG terminal in North-East Asia that is currently under construction in Ulsan, we will make it possible to import LNG directly. We also plan to construct the world's first LPG/LNG combined cycle power plant and expand this business model nationwide and overseas in an effort to bring innovation to our LPG business. ”

**Cho, Seungho**  
Head of Solution Business Division



**TSP Business**

Industrial clients continuously seek ways to improve its competitiveness by reducing production costs. We supply LPG as a raw material or fuels at competitive prices and offer comprehensive and customized solutions as a TSP (Total Solution Provider) business.

**Transition of Fuel in the Industry**

The shale gas revolution in 2014 significantly improved the price competitiveness of LPG. Coupled with our unique offering of LPG supply solutions, we were able to secure price competitiveness in the fuel market, which has traditionally been focused on LNG and Bunker-C oil. Based on such price advantage, we have been supporting the conversion of fuel from Bunker-C oil in industrial companies. In February 2020, we signed the 'Collaborative Business Agreement for eco-friendly Fuel Transition of SMEs' with Korea Midland Power Co. Ltd. as part of our growth plans.

**Business to Supply LPG for Power Generation**

SK Gas strives to contribute to the long term competitiveness and cost reduction of our industrial clients by providing power generation

solutions which run on LPG. We cooperated with Doosan Fuel Cell to develop an LPG-based fuel cell and in 2018 successfully co-developed PAFCs (Phosphoric Acid Fuel Cells) which can use either LNG or LPG. Through our partnership with Doosan Fuel Cell, we are in the process of various fuel cell power generation projects.

**Total Solution Provider**

Having secured LNG terminal assets and by leveraging our trading capacities, we were able to establish a foundation for the direct importation of LNG.

On this basis, we will be able to provide solutions that allow industrial companies to choose and utilize competitive fuels according to their diverse demands and methods of use, such as the need for particular raw materials and fuels.

With our in-depth understanding of the concerns within the industry, we will launch additional boiler optimization services and energy efficiency assessment and improvement services to strengthen our competitiveness across the value chain. We continually look for ways to develop solutions for shared growth.



1. LPG fuel cell  
2. Blueprint of fuel cell business



UN SDGs Link



Key Topic 02

# Strengthening of Business Portfolio

### Materiality Topic

The opportunity for new markets and businesses is increasing thanks to the ever-changing and growing energy industry. Companies have diversified their portfolios by expanding existing businesses and discovering new ones in their pursuit of growth. Most companies that have expanded into the automobile, chemical, and semiconductor industries – in order to tap on their growth potential – are vertically integrated. Vertical integration is advantageous as it allows for timely decisions, synergies, and price competitiveness. Similarly, in the energy industry, many companies are diversifying through proactive M&A for expansion and growth. Oil refinery companies are entering the electric battery market; power generation companies are entering into photovoltaics, ESS, smart grid businesses, and global gas companies are entering the biofuel industry. As a result of these changes, the traditional form of oil refinery, gas, and electricity companies no longer exist as they now define themselves more broadly as energy companies.

Since the shale gas revolution that began in the United States, LPG is becoming sufficient in supply and gaining price competitiveness to enter into a new chapter of growth. SK Gas intends to strengthen its business portfolio through the vertical integration of the gas chemical business, which allows for the maximum utilization of capabilities of previous LPG business operations, together with the changing status of LPG in the global energy market. We are further expanding our business portfolio by using the LPG/LNG gas power plant business for the direct importation of LNG and other LNG related businesses.

### Approach & Strategy

We are aggressively investing in new businesses in order to reap synergies with existing gas businesses and also to create new sources of growth. In order to diversify our business portfolio through new businesses, we have established an axis of growth through vertical integration in the downstream sector of the gas chemical business, which starts from propane and follows down to propylene and polypropylene. We established another axis of growth in the direct import of LNG and power generation business, which will allow our transformation into a multi-utility supply business from a provider of LPG products only. We also aim to become a Total Solution Provider of Eco Energy by offering energy efficiency solution services.

### Social Value

SK Gas uses eco-friendly energy to expand into new businesses. SK Gas uses eco-friendly LPG energy as raw material in the gas chemical business, and uses eco-friendly LPG and LNG energy as fuel in the power generation business. We aim to minimize fine dust and emission of air pollutants through these processes. Also, we support the optimal use of energy through our provision of solutions for industrial and commercial energy efficiency.

To create social value, SK Gas actively participates in minimizing the emission of air pollutants and dealing with climate change due to greenhouse gas emissions, by generating electricity from clean fuel and providing services that promote the efficient use of energy.

### 2025 Long-term Target

<p>Amount of greenhouse gas reduction through supply of LPG fuel cell</p>	<p>Spread of energy efficiency solution services</p>	<p>Amount of LNG bunkering</p>
<p>2019 0 2025 12,800 tCO<sub>2</sub>e</p>	<p>2019 0 2025 94 companies</p>	<p>2019 0 2025 100,000 tons</p>

“ We are diversifying our portfolio through new electricity businesses on top of our existing gas businesses. We embarked on our power generation business with the future of electricity in mind. In so doing, we expanded our portfolio to include new electricity businesses, such as energy efficiency. We go beyond simply replacing existing facilities with energy-efficient ones. We provide the best solutions for energy usage based on software that analyzes energy usage data. Through such data analysis, we are able to make recommendations regarding areas of improvement and strengthen our competitiveness using these forms of software. Also, we take one step further from handling customer inconveniences by offering additional solutions. To achieve this goal, we must work with various partner companies that provide AI-based energy efficiency services. However, there are not many businesses in this field domestically. We will enhance our value proposition to customers by first collaborating with leading international companies that provide AI-based energy efficiency services. ”



Ko, Jeongsuk  
Head of Growth Strategy Unit



## Completion of Vertical Integration of Gas Chemical Businesses

Unlike petrochemicals, the gas chemical business produces chemical products with LPG instead of crude oil. Propane, a type of LPG, becomes propylene when hydrogen is removed. Propylene is processed to produce polypropylene, which is used in pipes, vehicles, and construction materials.

SK Gas will expand into the downstream gas chemical business to complete the vertical integration of the value chain that connects propane, propylene, and polypropylene in the long term.

### Entering the PDH Business

We have harnessed the opportunity for new growth in the gas chemical business. Following the increase of shale gas production in the United States, surplus LPG from North America has flowed into North-East Asia, causing the downward trend in LPG prices. Also, with the rapid economic development in China and North-East Asia, there has been a significant increase in demand for vehicle parts, electronic parts, and fabric. As a result, we expect that the demand for propylene, which is an essential material used in the manufacture of these products, will also continue to increase.

As a company with more than years of experience in global LPG trading, SK Gas is the market leader in LPG. We have the largest LPG storage facility (cavern) in the world. We also have the advantage of being able to tap on the synergies with companies affiliated with the SK Group in Ulsan. This has provided us with a ready access to a network of local ports, by-product demand, and utility supplies in the region. As such, we chose the PDH (Propane De-Hydrogenation) business as our new growth engine.

PDH refers to the process of generating propylene by removing hydrogen from propane. Propylene is essential for the manufacture of plastic, synthetic fiber, and automobiles. When successfully operated, the PDH business is expected to secure profitability and create an additional demand of 800,000 tons of propane annually. It is also expected to benefit the existing LPG business through the integrated marketing of propane/propylene by securing additional trading quantities. Even though it was initially challenging for our company to shift from our traditional focus on distribution, we knew it was worthwhile to expand into the manufacturing industry.

In 2014, after three years of thorough planning and preparation, we established SK Advanced in Nam-gu, Ulsan, with Advanced Petrochemical Company (APC) from Saudi Arabia and Petrochemical Industries Company (PIC) from Kuwait. Under this name, we constructed a PDH factory in Ulsan that initialized its commercial operation in April 2016.

We selected Lummus, a pioneer in the field, from the United States as our PDH process licensor. Today, we are generating around 700,000 tons of propylene annually. As of 2018, we have the world's largest production capacity in a single propylene factory and the business has been profitable since it commenced in 2016. We continue to be successful, and achieved a record of KRW 95.5 billion (USD 82 mil.) in operating profit in 2019. On top of generating new propane demand, we have also generated trading profit through the expansion in quantity of LPG being traded.



SK Advanced was established on September 12th, 2014 as a producer and retailer specializing in propylene. At our PDH factory in Ulsan, around 700,000 tons of propylene is produced annually, alongside the production of hydrogen, steam, and other byproducts. As of the end of 2019, total revenue was KRW 780.77 billion (USD 674 mil.) and the total number of employees was 119.



SK Advanced's PDH factory in Ulsan





**Entering the Polypropylene (PP) Business**

Since the early stages of its establishment, SK Advanced has strived to reduce the risk that arises from being a single product propylene business and its reliance on demand from China. One such strategy has been to diversify into the production of propylene derivatives. Expansion into the business of propylene derivatives is significant in terms of decreasing variability in profit as it secures fixed demand, strengthens business stability, and integrates propylene and the derivatives business.

Propylene is critical to the petrochemical industry as it is used as an essential raw material for petrochemical products, along with ethylene. It is also used in the manufacture of polypropylene, which faces a growing demand given its use in packing materials, vehicles, textiles/fabric, and other industrial uses. Moreover, polypropylene has no suitable substitute, so it is a very important material from an economic perspective. It is also a sustainable resource that the environmental organization, Greenpeace, has acknowledged it as the 'resource of the future.'

In November 2018, SK Advanced established a joint venture, Ulsan PP Co., Ltd., with Polymirae Co., Ltd., the largest polypropylene manufacturer in Korea, whose major shareholder is the global chemical company LyondellBasell Industries N.V.

Ulsan PP is currently constructing a polypropylene plant on a 163,726m<sup>2</sup> site at the south-eastern port in Nam-gu, Ulsan. The plant is expected to be fully operational by May 2021 and to produce around 400,000 tons of polypropylene per year using propylene from SK Advanced as its base material. Upon the completion of Ulsan PP, SK Advanced is expected to be able to provide a stable supply of up to 400,000 tons of propylene annually, and at the same time, alleviate the risks associated with a single product business.

In the long term, this project is expected to fuel direct and indirect production worth around KRW 5 trillion in 2025. In addition to these economic benefits, the plant will also generate social value for the region by creating around 1,200 jobs.

118%

The production quantity of SK Advanced's PDH facility in Ulsan was 708,000 tons in 2019, which amounts to a 118% of its production capacity of 600,000 tons. The facility is recognized globally for having the world's highest level of O&M capacity.

**Entering the Global Market**

SK Advanced has been acknowledged as the best operated PDH plant among all licensees of Lummus and is utilizing its O&M (Operation and Maintenance) expertise to expand into the global market. The PDH plant is a high temperature/vacuum pressure operation plant that produces propylene, a gas product, using high-pressured equipment and SK Advanced had to overcome the many challenges that arose in the construction and initial operation process. Having acquired world-class expertise in operating a complex PDH plant, SK Advanced and SK E&C Co. Ltd., is taking part in the petrochemical complex PDH plant project in Antwerp, Belgium, which is funded by global chemical company INEOS Capital Ltd.. SK Advanced is planning to share with INEOS the expertise of operating PDH plants from the initial FEED to commercial operations. SK Advanced is committed to sharing its expertise acquired from operating multiple successful global PDH projects.

Having gained the necessary expertise and trust in the past 6 years since the establishment of SK Advanced, SK Gas was able to successfully enter the gas chemical market in Saudi Arabia. We have established a joint venture with the major shareholder of SK Advanced, Saudi Arabia's APC, and have plans to construct a USD 1.8 billion PDH/PP production plant in Jubail, Saudi Arabia. Upon establishing the joint venture in the second half of 2020, the construction of the plant will proceed, with an annual production of 800,000 tons of propylene and polypropylene expected from the end of 2023. This is the largest petrochemical plant to be constructed with the involvement of a Korean company in Saudi Arabia.

This investment signifies that our efforts to diversify our business since 2013 have been successful. As a result, we have gained global attention and are rapidly expanding in the global gas chemical market.

“ SK Advanced is utilizing propane, a clean energy source, to produce propylene, which is the raw material used for various plastic and other petrochemical products, and supply it to the customers of Ulsan and North-East Asia. We are trying to maximize customer's value by supplying products of the best quality in a timely manner, through the outstanding competitiveness and stable operation of PDH plant. Also, we are doing our best to maximize profits and returns to our shareholders by achieving NEA (North-east Asia) #1 PDH cost competitiveness, and focusing on employees' happiness and self-fulfillment. SK Advanced will continuously contribute to local and national economy and creation of jobs through stable plant operation and development of additional business. ”



Kim, Chuljin  
CEO of SK Advanced

1 Propylene



2 Purification

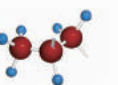
3 Polymerization

4 Recovery

5 Extrusion

6 Packing

7 Polypropylene



Production process of PP in Ulsan



## Strengthening Energy Portfolio

### LNG & Power Generation Business

We have newly entered the field of power generation as the important first step to becoming a multi-utility business. We have gone beyond the traditional role of importing, storing, transporting, and supplying sustainable LPG energy, to directly importing LNG, another sustainable energy. We aim to expand our power generation business by utilizing the sustainable energy that we have secured. We will become a leading company specializing in sustainable energy by tapping on synergies with existing businesses to retain our competitive advantage.

### Construction of the World's First LPG/LNG Combined Cycle Power Plant

We entered into the sustainable power generation business to contribute to the stabilization of the previously inadequate supply of domestic electricity. To achieve this, we began construction of the environmentally friendly LPG/LNG combined cycle power plant in Ulsan. Ulsan GPS, established as a split-off in 2019, covers a scale of 1.2 GW and is under construction at the Ulsan Mipo National Industrial Complex. It is the world's only environmentally friendly combined-cycle power plant that can burn both LNG and LPG, and is expected to be completed in 2024.

We plan to operate our GPS combined cycle power plant with our own standard of emissions (NOx 5 ppm, no additional emissions) which are stricter than that defined by the Clean Air Conservation Act, restricting SOx to 50 ppm, NOx to 20 ppm, and Dust to 10mg/m<sup>3</sup>. We will do this by implementing and applying sustainable equipment such as cutting-edge high-efficiency SCR and keeping the stability of environmental performance at the forefront of our decisions for construction in the form of undergrounding power cables.

### Plans for Future Operation of LNG Multi-Fuel Terminal

We have become the second-largest shareholder (45.5%) of Korea Energy Terminal Co., Ltd. (hereinafter referred to as KET) in November 2019, which will be launching the business for petroleum and LNG multi-fuel terminal operation with Korea National Oil Corporation. The business initiated by KET is expected to require around 600 billion won and commercial operations of the LNG terminal are expected to commence in June 2024.

We have truly transformed into a multi-utility business that supplies LPG, LNG, electricity, and steam by securing an LNG terminal, in addition to our LPG import terminal in Ulsan, which is currently the largest facility in Korea.

### Feasibility Study of LNG Bunkering Business

Because of the IMO 2020 environmental regulations that take effect from 2020, the standard for sulfur content of vessel fuels has significantly decreased to 0.5% from the previous 3.5%. This leaves the industry no choice but to use low sulfur oil or switch to sustainable LNG fuel for vessels. In order to meet this increased demand for LNG, we are looking into ways to take part in the LNG bunkering business by utilizing the KET LNG terminal.

### Energy Efficiency Business

We plan to go beyond generating and supplying energy using clean fuel to become an 'Eco Energy Total Solution Provider' that provides solutions for optimized energy use. Based on this vision, we hope to expand into the electricity business.

The energy market, which includes electricity, is transforming in terms of de-carbonization, decentralization, and digitization. We expect the usage of energy by companies to change drastically due to the increase in energy costs as companies incorporate more renewable energy into their energy mix, especially for larger energy users.

To discover new business opportunities arising from these market changes, we have been developing 'solution services for optimized energy', which allow customers to more efficiently use energy, including electricity. We aim to go a step further from the traditional method of managing

energy, such as replacing hardware or using standardized analysis, to providing a data-based energy management experience.

This is a service in which the customers' energy usage is monitored in real-time, and the most efficient operation solutions that can be applied for immediate results are proposed.

We have been preparing to establish our offering of energy optimization services by partnering with domestic and overseas solution companies and energy inspection/engineering specialized companies.

We have formed an alliance with Metron SAS, an energy-specialized AI solution company from France, which is well-known in the global market. Its potential was also confirmed through the successful pilot projects that were run with domestic industries. With this alliance, we began the 'solution service for optimized energy based on data analysis' in May 2020. In this service offering, we offer customers real-time optimization solutions by comprehensively analyzing their energy consumption and manufacturing processes using data generated from the plant, as well as external data, such as weather and energy fees. This service will not only reduce energy costs, optimize the production process, and support investment decisions of customers but it will also enable more efficient use of manpower.

SK Gas will continue to discover emerging energy

solutions in both the domestic and global markets, with the aim of establishing our own unique integrated energy service platform.



### Economic/Social Value of Energy Supply Platform Service

**Economic value**

- Strengthening competitiveness through cost reduction
  - Appropriate for energy cost reduction (3-5% cost reduction anticipated)
  - Optimize equipment investment costs through proposal of appropriate specifications
  - No additional costs for energy consulting
- Decision-making based on integrated data
  - Effect of data-based decision-making (5 times speed of decision-making, 3 times speed of execution)
- Effective utilization of manpower
  - Maintain optimized level of manpower by reducing time spent on energy data management

+

**Social value**

- Reduction of unnecessary energy use
- Reduction of social costs
  - Reduction of cost to improve the environment
  - Reduction of greenhouse gas emissions and fine dust
- Strengthening of sustainable & innovative company reputation

1. GPS combined cycle power plant in Ulsan  
2. KET LNG terminal



UN SDGs Link



Key Topic 03

# Occupational Health and Safety

### Materiality Topic

The safety and welfare of our employees working at industrial sites are regarded as a priority to our stakeholders, as industrial accidents cause both economic and social losses.

In the energy industry, there have been accidents that have caused human casualties within the work site as well as examples of accidents such as explosions and chemical leakage that affect the environment of the wider community. Therefore, active response to such from the Safety, Health, Environment (SHE) perspective is growing in importance.

### Approach & Strategy

SK Gas handles high-pressure, high-temperature facilities and chemical substances in its major businesses. As a result, the prevention of safety accidents that may occur in the operation and distribution process is a required management factor. We strictly manage chemicals in accordance with the Chemical Substances Control Act and help our employees execute SHE in their daily lives through various training and programs.

### Social Value

In order to minimize the company's economic and human losses as well as indirect social costs caused by accidents, SK Gas measures and manages negative social value every year and makes sure that measures of improvement are reflected on the business plans.

“Accumulated experience and knowledge on terminal operations and management procedures, as well as data from facilities and operations that are collected and monitored in our system, are used to establish SHE related procedures to prevent accidents from occurring. We spare no effort in ensuring a workplace culture that prioritizes the safety of employees in all work procedures through autonomous SHE management. SK Gas performs regular safety inspections and provides user training at LPG filling stations and LPG usage and storage facilities for supplier companies, and we are quick to manage and handle lapses in safety. Furthermore, we have established an Integrated Customer Management System (ICMMS) to identify and address recurrent safety issues. We implement emergency response training for various scenarios and work together with SK Group affiliates and local fire stations to respond smoothly in the occurrence of disasters.”

**Lee, Cheolhoon**  
Head of Technology Division



### 2025 Long-term Target

Business Sites	End of 2019	Target by the end of 2025
Ulsan Terminal	Accident-free for 7 consecutive years	Accident-free for 13 consecutive years
Pyeongtaek Terminal	Accident-free for 25 consecutive years	Accident-free for 31 consecutive years
G.Hub	Accident-free for 7 consecutive years	Accident-free for 13 consecutive years
SK Advanced	-	Accident-free for 6 consecutive years

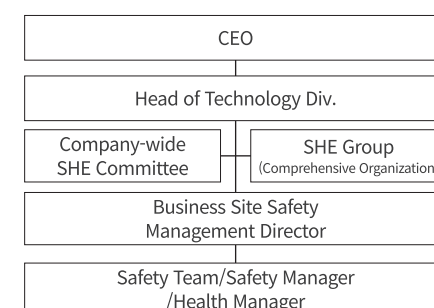
### Management of Occupational Health and Safety

SK Gas aims for 'Active SHE', which is based on the voluntary participation of its employees. This is not a passive form of 'SHE' that is practiced in accordance with company policies or regulations. It is a voluntary form of SHE where employees participate in pursuit of their own happiness. We further aim to contribute to the happiness of all stakeholders, including customers, the society, and shareholders through 'Active SHE.'

### Strengthening SHE Governance

SK Gas established a company-wide SHE Committee in charge of safety, health, and environmental issues for employees and customers from production to marketing and all service processes; this lays the foundation for the occupational health and safety system. The SHE Committee is a subsidiary body under the CEO,

### Organization Chart of Occupational Health and Safety Management



which comprehensively deliberates important issues pertaining to company-wide occupational health and safety goals and strategies. It consists of chief executives of safety, health, and environment from each business site, including the director of technology.

### Introduction of SHE Management System

After establishing the company-wide SHE principles in 2016, the SHE Management System was introduced to systemize SHE management across business sites, and the SHE Virtuous Cycle (Plan-Do-Check-Act) culture was perpetuated through the self-inspection and monitoring of indicators. In addition, the SHE Management System has been expanded to new business sites and investee companies such as G.Hub and SK Advanced.

In the future, we plan to continue the introduction of the same level of SHE Management System to investee companies and systematically manage the system as our business expands.

### Establishment of Integrated SHE Management System

In order to systematically share the status of SHE and critical SHE information between SK Gas and investee companies, and to co-respond to various internal and external SHE issues, we have established the 'Integrated SHE Management System (ISMS)' in 2019. Through ISMS, we manage accident-free, SHE performance (PSI/accident

indicators), environmental indicators, work approval/change, SHE accidents, SHE audits, and SV KPI performances and utilize them when establishing new SHE policies.

\* ISMS : Integrated SHE Management System

### Establishment of Integrated Customer Safety & Management System

Due to the increase in new LPG customers and LPG Small Bulk business, the need for safety inspection has also increased. In 2019, SK Gas established the 'Integrated Customer Safety & Management System (ICSMMS)', an integrated management solution for customer safety and maintenance that leverages IOT. ICSMMS has enhanced the accessibility and convenience of internal and external users by providing real-time safety and asset management information of LPG customer facilities, and enabled prompt response through real-time information sharing.

\* ICSMMS : Integrated Customer Safety & Management System

### Promotion of ISO 45001 (Occupational Health and Safety Management Systems) Certification

SK Gas plans to receive ISO 45001 certification, the international standard for occupational health and safety, so as to prevent health and safety risks in advance and increase business sustainability in compliance with regulatory requirements. We anticipate that the process of preparing for the



certification will be an opportunity to inspect and eliminate risk factors at the business sites and upgrade our health and safety management system.

**Strengthening of Safety in Business Sites**

**Safety Diagnosis and Management**

SK Gas diagnoses the level of compliance with safety rules for all facilities and work sites through regular inspections of the safety management system. The diagnosis comprises of document inspection and on-site inspection and is conducted once a year at each business site. When inspecting documents, we check whether the regulations regarding gas, firefighting, and hazardous materials have been complied with. When inspecting sites, we inspect risk factors for each work process and strive to prevent safety accidents at each business site. We identify safety hazards in advance through regular on-site patrols and share near-miss cases and SHE activities inspection details through monthly health and safety meetings.

As the scope of responsibility of contractors was enhanced in the amended Occupational Safety and Health Act in 2020, we reviewed improvement measures for SHE management of business sites, and selected 'site-oriented', 'autonomous practice', and 'establishing a safe culture' as improvement

measures. Through the Korea Industrial Safety Association, an external professional organization, we conducted SHE management diagnosis to determine the safety awareness level, PSM level, firefighting and dangerous substances and gas safety management. As a result of the diagnosis, we decided to maintain our safety culture level, which was identified as our strength. At the same time, we have identified safety engagement activities, which received a relatively low evaluation score, as an area for improvement. These results will be reflected in the SHE master plan.

**Operation of Integrated Emergency Response System**

SK Gas operates a company-wide integrated emergency response system in order to respond promptly to emergencies and prevent them from turning into major accidents. We operate a monitoring system 24/7 on a business site level, which enables prompt on-site response and communication in cases of emergencies. In the event of an accident, we operate emergency response procedures and response organizations according to each situation.

Each business site contacts the department at which the accident occurred, the situation room, and supervisory department of SHE through the

emergency contact network to perform response procedures according to the severity of the accident. The details of the accident are not only reported within the company, but also to public institutions, fire stations, and agencies related to the business sites to minimize damage of nearby areas. The scope of damage is calculated in terms of impact on humans (human injury, damage to nearby residents, leakage of hazardous chemicals) and material loss (amount leaked to the ocean and land, scope of environmental damage), and we establish and implement measures to prevent recurrence after the accident.

On-site Diagnosis	
<b>Gas Facilities</b>	
Licensed liquefied petroleum gas filling facility, reporting facility	☑
City gas and specific gas usage/manufacturing facility	☑
High-pressure gas container storage/high-pressure gas manufacturing permit	☑
Piping, storage	☑
Gas leak alarm	☑
Inspection and management of pressure vessel	☑
Gas tank truck management	☑
<b>Firefighting and dangerous facilities</b>	
Suitability of fire extinguishing apparatus, fire extinguishing equipment, firefighting water equipment, firefighting activity equipment	☑
Suitability of alert facility and evacuation facility	☑
Facilities vulnerable to fire	☑
Permits and required documents related to storage and handling hazardous materials and transportation facilities	☑
Condition of exit lights and signs	☑

**Maintenance of Chemicals**

Due to recent large-scale leakage accidents of chemicals, social awareness and concerns around the dangers of hazardous chemicals have been on the rise. Regulations in the 'Act on Registration, Evaluation, Etc. Of Chemicals' and 'Chemical Substances Control Act' have also been strengthened.

SK Gas is responding to these changes responsibly. Hazardous chemicals handled at business sites are thoroughly managed in accordance with the chemical introduction and handling management procedures. When new chemicals are introduced or existing chemicals are replaced, the Material Safety Data Sheet (MSDS) information is disclosed on our website, in accordance with laws and internal procedures, so that customers as well as employees can safely use the chemicals.

SK Gas provides information so that the workers who handle chemicals can accurately recognize the danger that these substances pose and conducts relevant training in health and safety measures to prevent accidents. Moreover, we provide chemicals safety precaution training to employees of supplier companies who work with us at our business sites.

We provide protective gear kits and emergency medicine kits near hazardous chemical storage facilities so that local residents or visitors can use them in case of emergencies.

**Spread of Safety Culture**

**Operation of Employee Health Program**

SK Gas hosts the 'Deep Change Body' event to help with the employees' health management. SK Gas measures and grades the fitness and body fat percentage of employees and rewards those who show improvement, creating a healthy and safe culture.

**Spread of Safety Culture**

SK Gas holds various programs in order to spread a culture of safety.

In order to raise safety awareness and reduce accidents, we select and reward employees who serve as role models at each business site. SK Gas operates a safety mileage system that reflects the safety activity evaluation score of each business site, and each business site selects model safety employees by counting the safety mileage scores once a year.

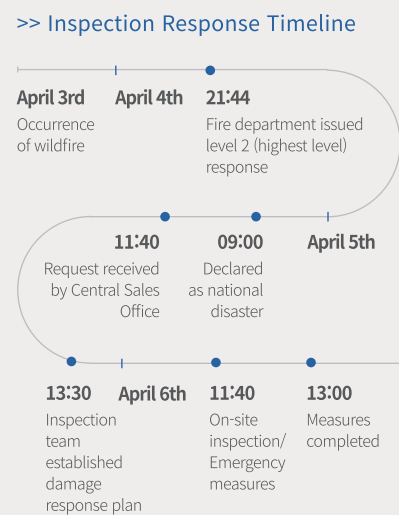


1, 2, 3. Emergency preparedness and response training

**Case Study 01 Emergency safety inspection at a filling station in response to the Gangwon-do wildfire**

When there was a wildfire in Gangwon-do in April 2019 and the fire had spread to the vicinity of our clients, SK Gas dispatched emergency safety inspection teams and our employees to the site to prevent damage to clients. The wildfire at the time had approached the boundary of our clients' sites due to strong a wind. Employees of client companies, SK Gas employees, and emergency safety inspection team members were on stand-by all night to prevent the fire from spreading to our clients' sites. Fortunately, the fire was contained, so only facility safety inspections were needed. In the event of similar threats to safety and negative impact to our clients, SK Gas takes preliminary measures to prevent further damage by dispatching an emergency safety inspection team.

<b>Subject of emergency safety inspection</b>	· Sokcho Private Taxi Gas Filling Station (located in Sokcho, Gangwon)
<b>Inspection response</b>	· Central Sales Office received status update and established a response plan; immediately implemented SHE group emergency safety inspection
<b>Details of the measures</b>	· Conducted inspection of overall LPG storage/output facilities · Conducted interview inspection with checklists including the operation of small bulk safety valves · Double checked for gas leaks in various pipes, including pit pipe



**Activities to Spread Safety Culture**

Activity	Frequency
<b>Safety Talk</b>	Once a week
Sharing Information Related to Safety	
· How to deal with industrial accidents	
· Health and safety guide for construction sites in winter	
· Nitrogen oxide charge system	
· Laboratory safety management plan	
· Matters to confirm in case of contract business	
· Material Safety Data Sheet (MSDS) information	
· Providing and managing protective gears	
· Details of risk assessment and Occupational Safety and Health Act	
· Serious disaster (involving fatal accidents) cases	
· Site safety and health guidelines for thawing season	
· Safety rules for confined workspaces	
<b>SHE Bulletin</b>	Once a quarter
Sharing information related to SHE	
<b>Performance sharing meeting</b>	Once a month
Sharing history of SHE performance through emails and ISMS system	
<b>SHE Director &amp; Plant Manager Workshop</b>	5 times a year
Discuss SHE-related issues and share relevant information	
Participants: Head of SHE management department, general manager of business site, and director of technology	
Participants if needed: New project manager, head of management department of the headquarter office	
<b>Model Safety Employee Award</b>	Once a year
Reward those who received top safety mileage scores by business site	



UN SDGs Link



Key Topic 04

# Ethical Management

## Materiality Topic

The societal demand for transparency in corporate management goes beyond the level of autonomous management of companies, and has been strengthened through national legislation, global standards such as ISO 37001, and responsible investment. Strengthening the Stewardship Code introduced by the National Pension Services in 2016 and increasing the proportion of responsible investment affecting institutional investors have become important factors that encourage the adoption of ethical management in domestic companies.

Despite predominant market positions or incomparable financial results, companies that cannot satisfy customers' high ethical expectations will not be sustainable. Corporate risk management needs to expand from tangible asset management to intangible asset management such as ethical management.

## Approach & Strategy

As a company respected by its stakeholders, SK Gas creates a transparent corporate culture with a top management team that emphasizes ethical management and employees that actively participate in law-abiding activities. We operate a Code of Ethics and Code of Ethics Guidelines and accept consultation and reporting through various channels. In addition, we are striving to establish a fair trade order through the introduction of a Fair Trade Compliance Program. As part of these efforts, SK Gas obtained ISO 37001 (Anti-Bribery Management System) certification in 2020.

## Social Value

Positive and negative factors coexist in the social value of ethical management. Positive factors include social reputation and support from customers to companies that practice transparent management, whereas negative factors include immediate damage to the brand value of the company in the event of corruption, as well as direct and indirect negative factors due to fines and disregard from customers. SK Gas views ethical issues as a core risk, and approaches them with the management philosophies of the SK Management System (SKMS) and internal guidelines to prevent them from manifesting. SKMS management philosophy uses the happiness of its employees and stakeholders as its yardstick in areas where ethical judgment is required. There are systems in place, such as internal regulations and procedures related to ethical management, which are responsible for detailing the operational standards of ethical management so that corporate and social values are not infringed.

### 2025 Long-term Target



## Ethical Management System

Companies are increasingly required to comply with global standards of corporate management. Domestic demand for corporate social responsibility are also increasing. In light of these trends, companies should practice responsible management as part of their overall management mandate in considering the social, economic, and environmental impact of its decisions.

SK Gas adds value to various stakeholders, including customers, employees, shareholders, suppliers, and the society, based on the basic management philosophy of SK Management System (SKMS). This enables us to play a key role in the development of the society and the economy, while actively practicing corporate management that contributes to the happiness of humanity. To this end, we established and applied various regulations including the Code of Ethics, which has become the standard of decision-making and behavior of employees. In addition, we manage our ethical management systematically and transparently through various communication channels. Moreover, we are improving the ethical awareness of our employees through ethical management training and the establishment of ethical practice infrastructure.

## Code of Ethics

The Code of Ethics is a standard for decision-making and behavior of all SK Group employees. It stipulates the basic ethics, compliance with laws

and management policies of the company that are expected of employees. The Code of Ethics is put into practice through the detailing of rules and guidelines, including those pertaining to the consultation and reporting system, standard of budget use and costs, and frequently asked questions. All employees and business sites of SK Gas conduct their business practices based on the Code of Ethics. For more details of the Code of Ethics, visit the SK Gas website.

## Code of Ethics Consultation and Reporting

### Consultation and Reporting through Various Channels

SK Gas operates a consultation and reporting center so that various stakeholders can directly consult and report on violations of the Code of Ethics, such as corruption and fraud, receipt of money or entertainment, and improper business with suppliers or clients.

Internal employees as well as external stakeholders, such as customers and suppliers, can consult and report on violations of the Code of Ethics through various channels, including online reporting (<http://ethics.sk.co.kr>), telephone (+82-2-6200-8229), mail, and email ([skgas.ethics@sk.com](mailto:skgas.ethics@sk.com))

## Procedure and Whistleblower Protection

SK Gas strictly protects the identity of the whistleblower and details of the report according to relevant regulations and procedures, so that no one is discriminated during in the process of consulting/reporting violations of the Code of Ethics. Anyone who neglects these safeguards by attempting to identify the whistleblower or reported person, or penalizes the whistleblower, will be subject to strict disciplinary action.

We also operate a system through which those who contributed to the company's transparent management through consulting/reporting can be rewarded.

## Result of Report Processing

In 2019, a total of 13 reports were received. The breakdown is as follows: 1 report from customers, 5 from suppliers, 2 from employees, and 5 from others. Reports are directly investigated by the audit group or transferred to the relevant departments according to the details and level of importance. In order to prevent similar cases from occurring in the future, we establish and disclose the guidelines and strengthen training for all employees.



**Expansion of Ethical Culture**

**Employee Training**

To proliferate the company's ethical culture, SK Gas consistently holds training for all employees. We provide online and offline training on ethical management and anti-corruption, which includes basic training such as the importance of practicing ethical management to ethical management and reporting channel, what constitutes as violations, and prevention of workplace harassment. Moreover, we prevent potential problems that can arise in the workplace through training that covers topics on sexual harassment and raising employee awareness about security protocols to protect trade secrets and customer information.

trade, such as unfair trade value decisions made before signing a contract with clients, forcing suppliers to purchase goods, unfair demand for economic benefits, and complying with the obligation to issue written contracts. The results of the deliberations are reflected in the contract to be signed.

**Establishment of Fair Trade Culture**

In order to establish a company-wide fair trade culture, SK Gas made a pledge in 2013 for all employees to practice fair trade and conducts annual training on different subjects, according to the department and responsibilities. SK Gas delivers knowledge of relevant laws that employees must be aware of in the course of performing their tasks, and clearly presents the behavioral standards that should be complied with.



**Compliance Operation System**

**Operation System for Fair Trade Compliance Program**

SK Gas pioneered the introduction of the Fair Trade Compliance Program in 2002 to spread social value through fair trade. In 2003, our CEO publicly declared our commitment and measures of Fair Trade Compliance to the public. To incorporate fair trade practices as part of the company culture, SK Gas has been systematically implementing the Fair Trade Compliance Program, which includes training for employees. Recently, we are undergoing a major reorganization of the Fair Trade Compliance Program for its improvement, including the revision of Fair Trade Compliance guidelines and the appointment of a compliance manager.

To ensure contracts with our partners are signed fairly, SK Gas always makes sure to immediately reflect any amendments in the related laws, including Monopoly Regulation and Fair Trade Act and Fair Transaction in Subcontracting Act. Moreover, to prevent any potential unfair trade that may occur, SK Gas has established the Internal Deliberation Committee to carry out preliminary deliberation procedures. The Internal Deliberation Committee evaluates the risks and violations of the overall laws and regulations related to fair

Status of Reports on Ethical Management	Unit	2017	2018	2019
Customers	Cases	5	3	1
Suppliers	Cases	0	2	5
Employees	Cases	0	0	2
Others/ Unidentified	Cases	0	4	5

Status of Ethics Education		Unit	2017	2018	2019	2020 (Target)
Offline Training	Training Hours	Hours	590	580	640	670
	Participants	Persons	393	388	430	450
Online Training	Training Hours	Hours	399	417	471	490
	Participants	Persons	399	417	471	490

Prevention of Sexual and Workplace Harassment		Unit	2017	2018	2019	2020 (Target)
Online Training	Training Hours	Hours	288	625	1,067	1,225
	Participants	Persons	388	410	411	490

Personal Information Protection		Unit	2017	2018	2019	2020 (Target)
Online Training	Training Hours	Hours	-	47	45	50
	Participants	Persons	-	35	24	25

Information Security		Unit	2017	2018	2019	2020 (Target)
Online Training	Training Hours	Hours	397	784	573	615
	Participants	Persons	397	392	409	410

**Case Study 02 Frequently Asked Questions**

**SK Gas provides clear guidelines for correct behavior and value judgment that employees should follow according to all business situations.**

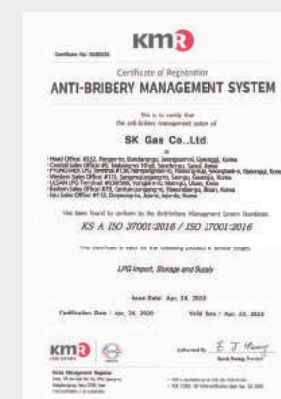
**Q** Recently the company has put more emphasis on transparent management. However, sometimes the difference between the protection of our business secrets and the transparency of management can be blurred in terms of relationships with partners or contractors. Please advise.

**A** Management and technology information which are acquired and utilized for business purposes should be protected with care. Such information is usually related to business secrets that should be treated with special care. If you are having difficulty deciding whether to disclose internal information to improve relationships with partners or to maintain secrecy, please consult the relevant department or team regarding the confidentiality of the information in question. Unless required by the nature of the business with the partner, there is no obligation to provide information.

**Q** What kind of protection measures does the company provide for whistleblowers whose identification is revealed in the process of an investigation?

**A** The company and personnel handling reports by whistleblowers make the utmost effort to keep the identity of the whistleblower and the content of the report confidential. However, if the identity of the reporter is unintentionally revealed, the best possible measures will be provided to prevent the whistleblower from being put at any disadvantage due to the reporting. If the whistleblower finds or is expecting that his/her identity is revealed, he/she can request the department in charge of reporting for help. The company and the department will provide the best protection measures with the preferences and intention of the whistleblower taken into account. Individuals and/or departments who unfairly treat the whistleblower will be dealt with and punished appropriately in accordance with relevant regulations.

**Case Study 03 ISO 37001 Anti-Bribery Management System Certification**



In April 2020, SK Gas was awarded ISO37001 Anti-Bribery Management System certification for all business sites. ISO 37001 is an international standard established by the International Organization for Standardization (ISO) in October 2016. It is a certification system that requires expertise to preliminarily identify, control, and manage corruption risks. It specifies detailed rules of conduct, such as ethical management, activities relating to integrity, internal control, and anti-bribery activities. SK Gas recognizes the importance of ethical management amid growing social expectations and demands for corporate roles and responsibilities and prepared to receive ISO 37001 certification to make it a driving force for sustainable growth. In 2019, we established anti-corruption manuals and procedures, evaluated corruption risks, conducted due diligence, internal evaluations, and management evaluations, and completed the certification process through a review period of 3 months from February 2020. This is proof that our compliance management system meets international standards and that SK Gas is a leading company of ethical management. We will not simply settle for the establishment of the anti-corruption system but do our best to continue to improve our system and lead in the area of ethical management.





Key Topic 05

# Response to Climate Change and Environmental Management

## Materiality Topic

Greenhouse gases have a great impact on climate change around the world. Climate change causes natural disasters such as drought and floods which in turn, affect businesses negatively. The international community has been discussing greenhouse gas reductions, and the Paris Climate Agreement was signed in 2015 to replace the Kyoto Protocol which expires in 2020.

The Korean Government is actively pursuing sustainable policies to achieve the target of reducing greenhouse gas emissions by 37% from business-as-usual (BAU) levels by 2030, and it is encouraging the achievement by allocating capacity to companies. From our perspective, fulfilling the government's greenhouse gas policy is not only a social responsibility – it is also essential to protect the happiness of its stakeholders.

Recently, SRI funds investing in ESG-friendly companies have surpassed USD 30 trillion as investment institutions are actively responding to climate change issues, and investors have come to expect information related to climate change be disclosed at a level similar to the disclosure of financial information. For instance, the Government Pension Fund of Norway, which has an operating asset totaling USD 1 trillion, announced to build a 'fossil fuel'-free portfolio in 2019 by withdrawing investment from the fossil fuel industry. Companies that do not respond appropriately to environmental issues may face difficulty due to a lack of investments, in addition to usual business risks. How a company responds to climate change

has become both an environmental responsibility and a long-term investment management strategy.

## Approach & Strategy

The Third Master Plan for Energy (2019-2040) announced by the Government in 2019 defined the transition to clean and safe energy as a demand of the times and identified addressing the fine dust issue as a national one. In addition, it aims to tackle the greenhouse gas and fine dust issues through the continual pursuit of the conversion to new and renewable forms of energy while drastically reducing coal power generation.

SK Gas recognizes the negative social impact of climate change and fine dust as immediate challenges and strives to tackle them through our business strategy of converting conventional fossil fuel, which emit high levels of greenhouse gas and air pollutants into clean gas energy. Moreover, SK Gas plans to actively tackle climate change by providing energy efficiency solutions to reduce industrial energy use, which accounts for 60% of total domestic energy consumption.

SK Gas also continues to pay attention to renewable energy businesses, such as solar power and wind power generation, and mainly participates through investments.

This year, we are in the process of receiving ISO 14001 certification, the international certification for environmental management. In the medium-term, we are also reviewing our participation in the RE 100.

## Social Value

We are able to reduce social costs equivalent to about KRW 208 thousand\* per LPG vehicle annually by replacing diesel vehicles with LPG vehicles, as diesel vehicles are one of the main contributors to fine dust. Converting fuel use by SMEs located outside the city that have no choice but to use Bunker-C oil (heavy oil) into LPG can reduce air pollutants and greenhouse gas emissions which amounts to a social value of about KRW 320 thousand per ton of LPG annually. In an effort to alleviate social issues related to fine dust and greenhouse gases, SK Gas is reducing the barriers to LPG fuel conversion to expand our supply of LPG. Moreover, in protecting air quality through new environmentally friendly businesses such as LPG fuel cell generation, LPG/LNG combined cycle power plant, and energy efficiency solutions, SK Gas will become a sustainable energy company that grows together with the environment.

## 2025 Long-term Target

CDP global carbon business evaluation	A
Total greenhouse gas emissions (Scope 1, 2)	38,000 tCO <sub>2</sub> eq
Total amount of energy use (fuel + electricity)	650 TJ

\* Source: Greenhouse gas emissions for each type of fuel (Ministry of Environment Notice 2018-73)  
Air pollutant emission factor for each type of fuel (National Institute of Environmental Research)

Social cost Eco-cost (Netherlands Delft University of Technology Eco-cost DB)

## Promoting Environmental Management

### Environmental Management Philosophy and Policy

SK Gas has a strong mandate to tackle climate change by reducing air pollutants through the provision of eco-friendly energy and solutions that help our consumers use energy most efficiently.

To this end, SK Gas is expanding its business platform that is based on the use of in LPG/LNG energy, two fuels with the lowest proportion of pollutant emission among fossil fuels. We are also undertaking a systematic approach towards environmental management in all of our operations.

### Environmental Management Promotion System

**Environmental Management Promotion Organization** SK Gas establishes and implements company-wide environmental management strategies, which come under the purview of the SHE Committee. SK Gas deliberates company-wide environmental management goals, strategies, and major subjects through the SHE Committee. The committee is composed of the head of technology division as the chair, along with vice presidents of business sites & processes, products & services, and support functions.

The SHE Group is the organization that handles related operations under the head of technology division and manages relevant departments at each business site to establish the direction of

the company's environmental management, promotion system, and tasks, which are performed and managed company-wide after the deliberation of the SHE Committee.

**Greenhouse Gas Management System** Every year, SK Gas establishes company-specific greenhouse-gas reduction targets through close discussions with the Government. To achieve these targets, SK Gas sets greenhouse-gas emission quantity and energy usage as separate Social Value (SV) KPIs and collects monthly greenhouse gas emission levels in the Integrated SHE Management System (ISMS).

### Environmental Management Evaluation and Certification

**ESG Evaluation** SK Gas is subject to ESG (Environmental, Social, Governance) evaluation by the Korea Corporate Governance Service every year. In 2019, we received a B in the environment grade. Following the result of the evaluation, areas that require improvement were categorized into company-wide priorities and improvements were set in motion since 2019, while areas that require time for improvement were set as medium-term goals subject for continuous improvement.

**ISO 14001 Certification Promotion** SK Gas is in the process of receiving the ISO 14001 Quality Management System certification. ISO 14001 is the international standard regarding environmental management systems and helps to identify environmental risks, set priorities,

and manage them throughout all corporate activities. SK Gas plans to upgrade levels of prevention of environmental pollution, compliance with environment regulations, and efficient management of environmental management through the process of being ISO 14001-certified.

#### Green Fuel Supply

SK Gas actively participates in improving air quality by expanding its business of converting fuel with high emissions of air pollutants into eco-friendly LPG in the industrial and transport sectors that are energy-intensive.

#### Green Chemical Plant

SK Gas actively participates in improving air quality by building gas chemical plants that use eco-friendly LPG and efficiently managing them.

#### Green Power Plant

SK Gas actively participates in improving air quality by expanding its eco-friendly power generation business through LPG/LNG fuel cell generation and the construction of an LPG & LNG combined-cycle gas power plant.

#### Green Culture

SK Gas actively participates in improving the environment of the planet by creating a corporate culture where employees practice sustainable measures, such as refraining from using disposable products.



**Efforts to Respond to Climate Change**

**Expansion of LPG & LNG Supply**

SK Gas contributes to the national effort in tackling social issues related to fine dust and greenhouse gas emissions by supplying eco-friendly energy.

**Conversion of Industrial Fuel** Small industrial businesses located in the outskirts of small cities have no choice but to use Bunker-C oil, which has a relatively high emission of air pollutants, either because of economic reasons, or because the city gas pipeline network cannot reach them. Together with Korea Midland Power, SK Gas is carrying out LPG fuel conversion projects for small enterprises by supporting the facility investment costs required for the fuel conversion. Greenhouse gas reduced through fuel conversion is recognized as an offset project for the reduction of greenhouse gas emissions and is later converted into a greenhouse gas emission credit. We expect to reduce about 30,000 tons of greenhouse gas and 1,300 tons of air pollutants in the next 10 years.

**Development of LPG Vehicle Technology**

Compared to diesel vehicles, LPG vehicles generate significantly less nitrogen oxide, which causes fine dust. SK Gas operates various support programs to encourage the greater adoption of LPG vehicles. In response to the feedback that LPG vehicles lack trunk space because of the LPG tank, we co-developed donut-shaped LPG tanks that are now available to customers. We are also in the process of developing high-power, direct injection LPG

engines, which were requested by 1-ton diesel truck drivers.

It is estimated that about 92% of air pollutants can be reduced when diesel vehicles are converted to LPG vehicles (27.6kg/vehicle per year, based on full-sized cars or vans). In the next 5 years, to the conversion of an additional 300,000 LPG vehicles would have the effect of reducing 8,300 tons of air pollutants, which is the equivalent of an annual social cost of about KRW 62.6 billion.

**LPG Collective Pipeline Network** There is still a heavy reliance on liquid fuels, such as diesel and kerosene, in rural areas where city gas pipeline networks are yet to be installed. SK Gas reduces fine dust and greenhouse gas emissions while supporting energy welfare policies for the underprivileged by installing small bulk tanks and supplying LPG to households through regional pipeline networks.

**LNG Bunkering Business** In accordance with the tightening of regulations on vessel fuel emissions that took effect in 2020, SK Gas has reviewed the benefits of supplying LNG as a vessel fuel. Compared to the conventional vessel fuel, Bunker-C oil, LNG has the effect of reducing sulfur oxides (SOx) by 100%, nitrogen oxides (NOx) by 80%, and fine dust by 90%. Once the construction of the KET LNG terminal and related business facilities are complete, we will begin to supply LNG vessel fuel mainly in the Busan/Ulsan region.

**Sustainable Power Generation Business**

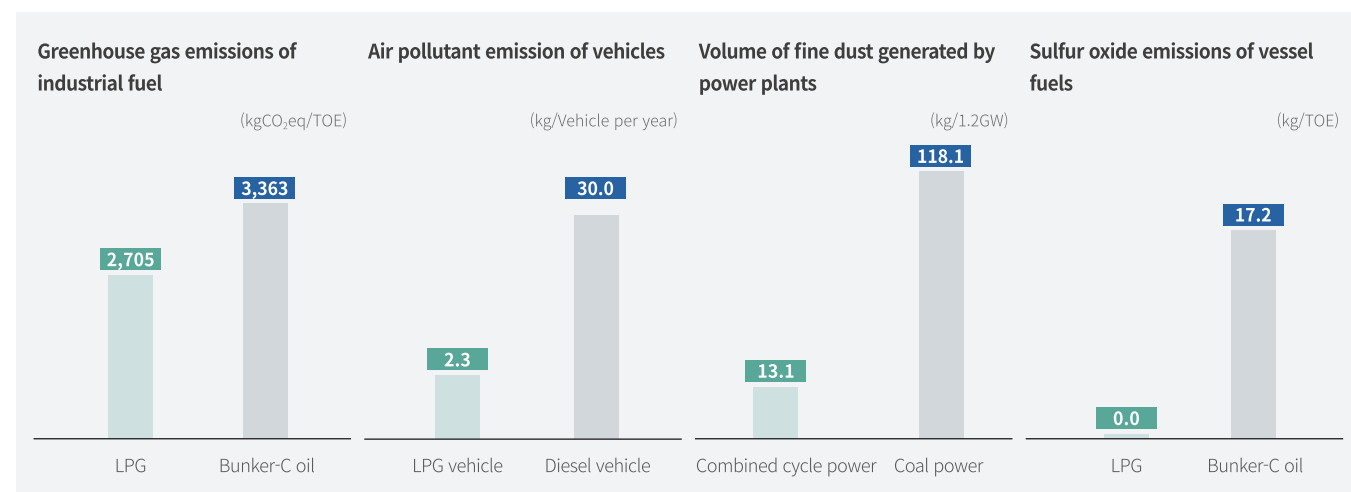
**Sustainable Combined Cycle Gas Power Business**

The construction of a 1.2 GW combined-cycle power plant in the Ulsan region that uses eco-friendly LPG and LNG as fuel sources is underway. The amount of ultra-fine dust generated from the SK Gas combined-cycle power plant is about one-ninth of that generated from a coal power plant of equivalent size, so it is expected to contribute significantly to the reduction of fine dust generated in the Ulsan region where petrochemical complexes are concentrated.

Classification	Combined-Cycle Gas Power Plant	Coal Power Plant	Note
Ultra-fine Dust Emission	13.1 kg	118.1 kg	Emission when 1.2 GW is produced

**LPG Fuel Cell Power Generation Business** Since the LPG fuel cell co-developed with Doosan Fuel Cell is not a combustion system, it is a sustainable power generation technology that emits very little air pollutants, including fine dust. LPG fuel cell power generation combined with a stable LPG supply will allow for de-centralized power generation to serve local communities.

Classification	Fuel cell	Thermal power generation
Fine dust	-	0.0068 kg/MWh
SOx	-	0.14 kg/MWh
NOx	0.006 kg/MWh	0.11 kg/MWh
CO <sub>2</sub>	111 g/kWh	850 g/kWh



Source: Greenhouse gas emissions for each type of fuel (Ministry of Environment Notice 2018-73)  
Air pollutant emission factor for each type of fuel (National Institute of Environmental Research)

**Participation in Greenhouse Gas Target Management Scheme**

SK Gas's Ulsan Terminal was selected as a participant in the Greenhouse Gas Target Management Scheme in June 2018. The plant reports greenhouse gas emissions generated from the site to the government and sets an emissions reduction target every year. SK Gas also measures and discloses the social costs of greenhouse gas emitted in the process of operating business sites every year and reflects these measurements in the operation of the business, as part of its efforts to reduce greenhouse gas emissions.

**Participation in CDM Business**

SK Advanced participates in the Clean Development Mechanism (CDM) project as a means to offset the greenhouse gas emitted in their chemical process. The CDM project will invest a total of KRW 1.4 billion in Myanmar from 2019 to 2024 to supply high efficiency cook stoves, through which about 110,000 tons of greenhouse gas emissions are expected to be reduced in Myanmar. Some of the achievements of the CDM project will be secured as carbon credits.

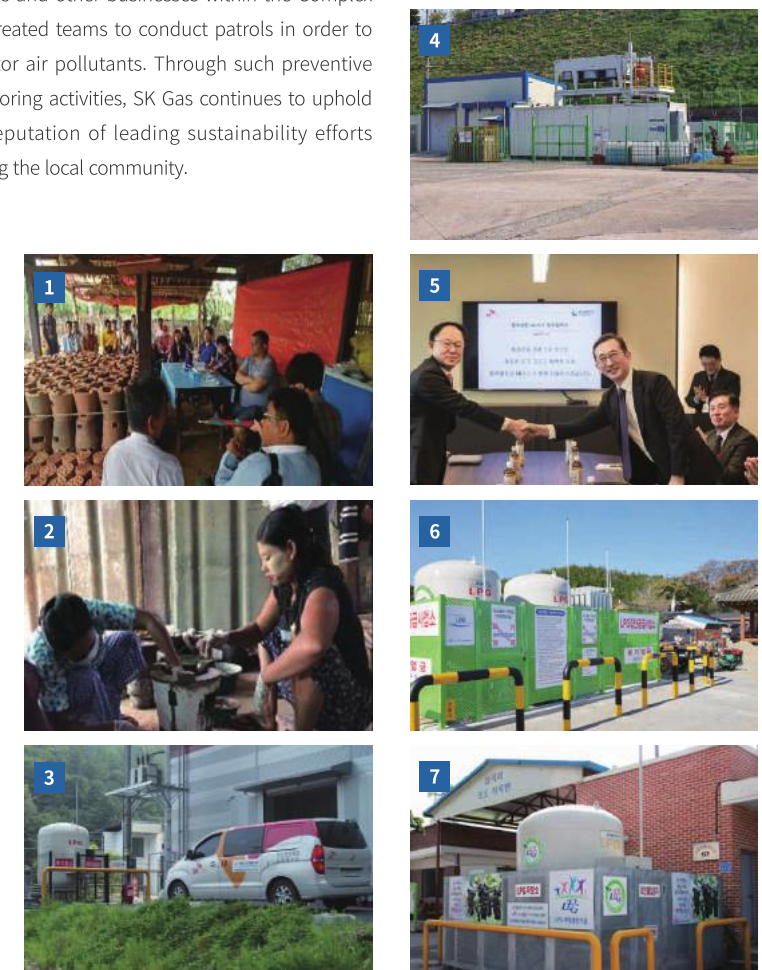
SK Gas participates in various discussions regarding greenhouse-gas reduction measures through environmental committee activities that are being implemented at the SK Group level. When new CDM projects arise, we plan to participate in them to maximize synergies.

**Management of Environmental Pollution Accidents**

**Response to Environmental Pollution Accidents**

In order to effectively respond to environmental pollution accidents such as oil spills in the dock area, SK Gas conducts marine control scenario training in accordance with emergency response management procedures. This way, we are equipped with the capabilities to respond promptly to accidents when they arise.

**Environmental Patrol Activities** SK Ulsan Complex is the barometer of the Ulsan environment. The internal and external environment of the factories have an important influence on the company. In particular, substances released into the atmosphere may lead to public complaints and the imposition of restrictions from administrative offices. As such, SK Gas and other businesses within the Complex has created teams to conduct patrols in order to monitor air pollutants. Through such preventive monitoring activities, SK Gas continues to uphold the reputation of leading sustainability efforts among the local community.



1,2. Project for the distribution of cook stoves in Myanmar  
3. Small LPG bulk  
4. LPG Fuel Cell  
5. Cooperation for the conversion of industrial fuel  
6,7. Project to support LPG pipeline networks



**Operation of Sustainable Business Sites**

As part of our sustainability efforts, SK Gas continues to invest in sustainable initiatives, such as improving the energy consumption of facilities and their resultant air pollutant emission across our business.

**Improving Energy Efficiency** At our Ulsan terminal, we have improved our electric power equipment such as motor starting methods or LED factory lights. Also, at our Pyeongtaek terminal, we have replaced low-pressure motors with inverter type to improve energy efficiency.

**Minimizing Environmental Impacts of Business Sites** Ulsan Terminal is reducing the negative impact on the environment through investments in sustainable equipment, such as the installation of designated waste oil separators, sumps for Heater TEG emissions, and Heater Low NOx Burners. Waste oil separators were installed at the Pyeongtaek terminal, and by enhancing the calcium chloride washing areas as well as the septic tanks, the water quality near business sites has been improved.

**Industrial Waste Disposal Management** The industrial waste from all business sites are sorted and stored by type and are handled and disposed legally by obtaining appropriate prior licensing, outsourcing the disposal, and reporting through licensed waste disposal companies.

**Activities to Reduce Air Pollutant Emissions** SK Gas's Ulsan and Pyeongtaek Terminals operate heaters in the basement storage facility of business sites, which store LPG from overseas cold storage vessels. In order to reduce the nitrogen oxide (NOx) generated from these facilities, we have invested in the installation of low NOx-emitting burners. When this project is completed by the end of 2020, we expect to halve the amount of nitrogen oxide emitted from our sites.

**Participation in Environmental Protection Activities**

**Employee Participation Activities**

**Avoiding Use of Disposables and Plastic Bags** In order to reduce the use of disposable products, employees use personal mugs and recyclable tumblers in office cafes instead of disposable cups, and umbrella cleaners instead of plastic bags to reduce the use of plastic. Moreover, we are continually promoting sustainable measures including the replacement of paper towels in bathrooms with hand dryers.

**One Company One Coast Care Campaign** Our Ulsan and Pyeongtaek Terminals have instituted a 'One Company One Coast Care Campaign', which is a marine environment protection initiative whereby each terminal holds quarterly environment

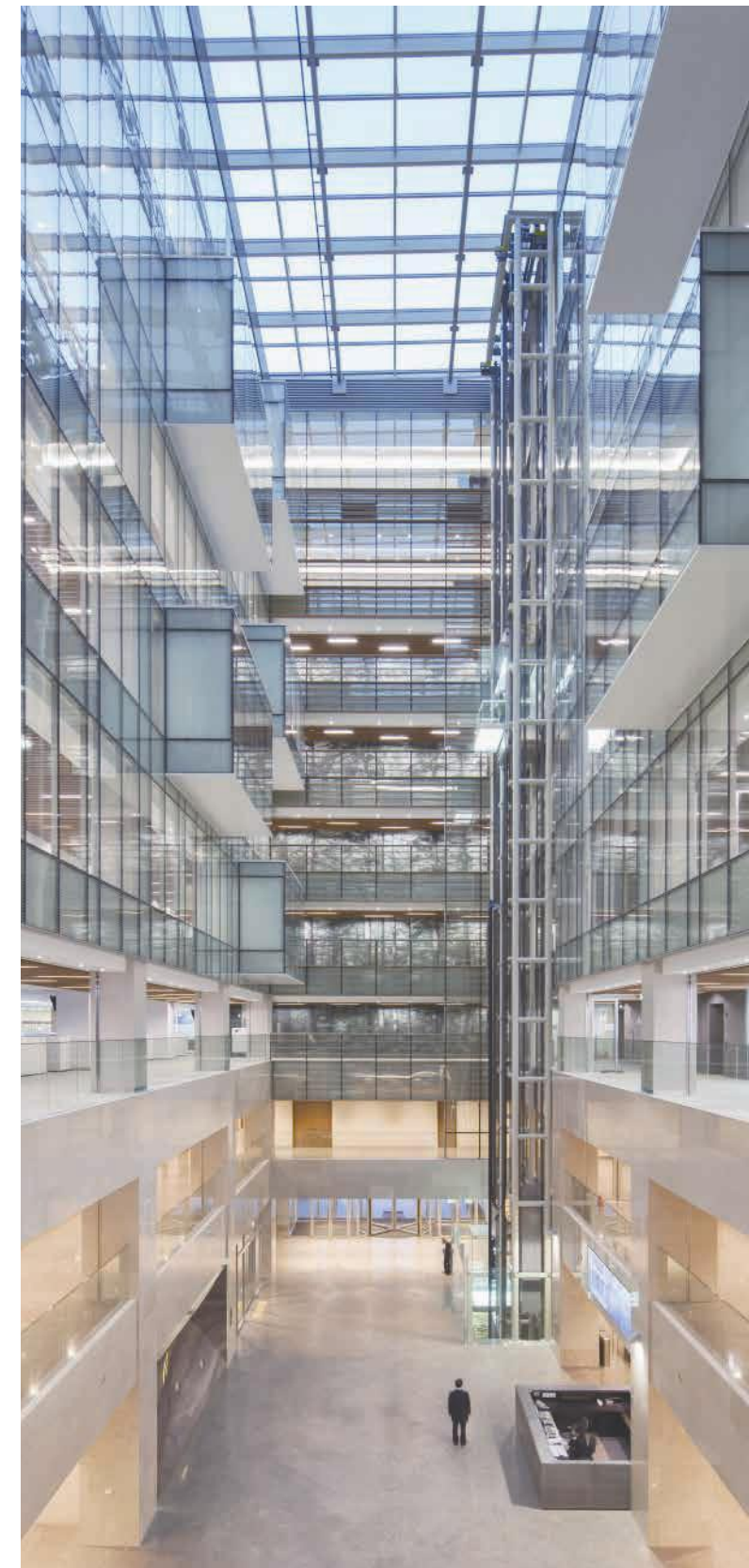
clean-up activities at the piers they are currently located at, as well as neighboring coastal areas. Through this activity, employees have taken pride in maintaining a healthy ecosystem by retrieving waste, fishing gears, Styrofoam, and scrap metals along the coast. Our activities have encouraged other nearby plants to do the same, allowing for a cleaner environment for all.

**Environmental Education**

As part of environmental education for children, SK Gas operates 'Green School' for elementary students to instill in them a sustainable mindset from an early age. SK Gas will continue to promote activities that share the value of the environment with our stakeholders and lead the way in creating a culture in which people appreciate the importance of the environment from a young age.



1, 2. Environmental education Happy Green School  
3. One company One Coast Care Campaign



**Special Page 04 Operating Sustainable Business Sites**

ECO Hub, the headquarter office of SK Gas, has adopted various sustainable architectural technologies to establish a sustainable office. The interior of the building is equipped with smart glass, double-layer façade, and thermal labyrinth technology. Smart glass is a functional glass that automatically detects the inflow of light according to changes in seasonal solar altitude and adjusts the transmission of heat to an appropriate level. This blocks solar heat in the summer and reduces the cooling load. Energy use and greenhouse gas emissions are reduced through the application of the double-layer façade. This technology, applied to the 3rd to 8th floor of the south and north sides of the building, is expected to save 11.6% in cooling and 10.4% in heating energy compared to high insulation curtain walls. 'Thermal labyrinth' is a technology that reduces fresh air load. It is a technology in which heat and moisture is exchanged with the underground by utilizing the labyrinth-like airways built in the underground space as entry paths for external air. It not only reduces energy costs required for pre-cooling and pre-heating, but also minimizes the air conditioning load. The sustainable building also utilizes horizontal geothermal heating, radiant floor cooling and heating, and a photovoltaic system.

The horizontal geothermal heating system is used as a heat source of radiant floor cooling and heating. Geothermal heat exchange pipes are installed in the foundational concrete of a building that reaches six floors below ground to acquire heat energy. Utilizing this geothermal heat not only reduces the amount of fossil fuels used and carbon dioxide emitted, it also contributes to energy savings. The radiant cooling and heating system applied to the floor of the lobby saves energy and increases efficiency compared to conventional air conditioning systems. By connecting to the geothermal heat system, we reduce heat storage in summer and cold storage load in the winter. The photovoltaic system installed on the rooftop structure of the building reduces building energy consumption and greenhouse gas emissions through solar powered generation. Our efforts in constructing a sustainable building have been recognized by various organizations, such as achieving grade 1 in the Energy Efficiency Rating, the highest Green 1 grade in Green Building Certification, Platinum LEED certification from the United States, and Korea's first ever Very Good BREEAM certification from the United Kingdom.





# Appendix

- Governance
- Sustainable Supply Chain
- Human Rights
- R&D
- CSR
- ESG Performance
- SK Gas Human Rights Declaration
- GRI Index
- TCFD
- Auditor's Report
- Third Party's Assurance Statement
- Greenhouse Gas Verification Statement
- Key Memberships

## Governance

### Board of Directors

**Composition and Independence of the Board of Directors** The Board of Directors of SK Gas is comprised of seven board members, including three executive directors and four outside directors. SK Gas has designated an outside director as the chair of the Board of Directors since 2012 to ensure checks and balances between the board and executives and to establish a leading governance structure. In 2019, the outside director Jong-ho Jeong was appointed as the chair of the Board of Directors.

More than half (57%) of the board is made up of outside directors recommended by the Recommendation and Nomination Committee for

outside directors to ensure the independence of the Board of Directors. When appointing an outside director, we make sure that they do not have a contractual or transactional relationship with the company of a certain threshold to ensure independent decision-making from the management and controlling shareholders. The number of concurrent positions that an outside director can hold in other companies is limited to one, and the consecutive term is also limited to one (total term of approximately six years) to ensure independence and to secure transparency of activities.

**Activities of the Board of Directors** The BOD meeting is held to actively collect the opinions of shareholders and stakeholders and to reflect them to management by reviewing and resolving agendas covering social, environmental and economic areas. SK Gas holds regular board meetings more than 10 times a year to approve annual financial statements, to convene the General Meeting of shareholders, and to report quarterly management performance etc. At the direction of the chair of the board or the director appointed by the chair, the secretary of the BOD sends the convocation five days before the board meeting. Except as otherwise provided by relevant Acts and subordinate statutes, agendas are resolved in the meeting when attended by and with the consent of a majority of the directors.

In 2019, a total of 13 BOD meetings were held, where 26 resolutions and 17 reports were presented.

Current Status of Board of Directors Composition

(as of March 27, 2020)

Classification	Name	Appointment Date	Term	Attendance Rate	Major Career	Area of Expertise	
Outside director	Jeong, Jongho	March 27, 2020	3 Years	100%	Anthropology, Seoul National University Ph.D., Anthropology (China), Yale University Current) Dean of Graduate School of International Studies, Seoul National University	Former) President (19th) of The Korean Association for Contemporary Chinese Studies Former) Director General of The Office of International Affairs of Seoul National University Former) Visiting scholar at Harvard-Yenching Institute, Harvard University	International relations
	Kim, Kwangjun	March 26, 2018	3 Years	100%	Law, Seoul National University Law, Seoul National University Graduate School Current) Attorney of Bae, Kim & Lee LLC	Former) EVP of Management Support Group, NHN Corporation Former) Senior Public Prosecutor, Seoul Southern District Public Prosecutors' Office	Legal
	Lee, Sanggoo	March 26, 2018	3 Years	100%	Computer Science & Statistics, Seoul National University Ph.D., Computer Science, Northwestern University, US Current) Professor, Computer Science and Engineering, Seoul National University	Former) Jury President, Samsung Research Funding & Incubation Center for Future Technology, Samsung Electronics Former) Head of Seoul National University Center for e-Business Technology (CEBT)	IT
	Kim, Yeongeun	March 27, 2019	3 Years	100%	Business Admin. Sungkyunkwan University Ph. D., Seoul National University Business School Current) Advisor at Kim & Chang	Former) Commissioner of the NTS Seoul Regional Office Former) Commissioner of the NTS Busan Regional Office Former) Officer of International Tax Management at the National Tax Service	Accounting and Finance
Executive Director	Chey, Changwon	March 27, 2020	3 Years	92%	Psychology, Seoul National University Current) Co-Rep Director/Vice Chairman, SK Discovery Current) Co-CEO/Vice Chairman, SK Gas	Current) Vice Chairman, SK Research Institute for SUPEX Management Current) Owner of SK Wyverns	Corporate management
	Yoon, Byongsuk	March 27, 2019	3 Years	100%	Chemical Engineering, Seoul National University M.A., Chemical Engineering, Seoul National University MBA, University of Michigan	Current) Co-CEO/President, SK Gas Former) EVP of Solution & Trading, SK Gas Former) Partner, Boston Consulting Group Seoul Office	Corporate management
	Lee, Haewon	March 27, 2019	3 Years	100%	Business Admin. Korea University Current) Head of Corporate Support Division, SK Gas	Former) VP of Finance Management Office, SK Gas Former) VP, Corporate Support, SK E&C Former) VP, PM Business Strategy, SK Networks	Corporate management



Activities of the Board of Directors in 2019						
Classification	Unit	2017	2018	2019		
Activities of the Board of Directors	Total	Persons	7	7	7	
	Composition	Executive Director	Persons	3	3	3
		Outside Director (Non-standing)	Persons	4	4	4
		Total	%	83.1	90.4	87.5
	Attendance Rate	Executive Director	%	61.9	76.9	86.7
		Outside Director (Non-standing)	%	100	98.5	93.3
		Number of Meetings Held	Times	10	13	13
	Resolutions	Items	23	25	26	
	Report	Items	20	19	17	
	Number of Agenda Items with Outside Directors' Opposition or Opinions for Correction	Items	0	0	0	
No. of Agenda Items with Abstention	Items	0	0	0		
Recommendation and Nomination Committee for Outside director	Total	Persons	3	3	3	
	Composition	Executive Director	Persons	1	1	1
		Outside Director (Non-standing)	Persons	2	2	2
		Total	%	67	100	100
	Attendance Rate	Executive Director	%	0	100	100
		Outside Director (Non-standing)	%	100	100	100
	Number of Meetings Held	Times	1	1	1	
	Resolutions	Items	1	2	1	
	Report	Items	0	0	0	
	Number of Agenda Items with Outside Directors' Opposition or Opinions for Correction	Items	0	0	0	
Audit Committee	Total	Persons	3	3	3	
	Composition	Executive Director	Persons	0	0	0
		Outside Director (Non-standing)	Persons	3	3	3
		Total	%	100	95.2	87.5
	Attendance Rate	Executive Director	%	N/A	N/A	N/A
		Outside Director (Non-standing)	%	100	95.2	87.5
	Number of Meetings Held	Times	6	7	7	
	Resolutions	Items	10	10	9	
	Report	Items	2	1	4	
	Number of Agenda Items with Outside Directors' Opposition or Opinions for Correction	Items	0	0	0	

**Process of Director Election** SK Gas ensures fairness and objectivity when appointing executive and outside directors. For executive director candidates, the BOD determines the candidate's qualifications and recommends candidates at the General Meeting of shareholders. For outside directors, the Recommendation and Nomination Committee for outside directors judges the qualifications of candidates and nominate the candidates of outside directors. When evaluating candidates, the company's own evaluation standards such as independence, expertise, fidelity, business-savvy, social reputation are comprehensively considered, as well as the aspect of the diversity in the BOD composition and management environment.

**Sub-Committees under the Board of Directors** SK Gas operates the Audit Committee, the Recommendation and Nomination Committee for Outside Directors, and the Sustainability Management Committee under the Board of Directors to maintain an efficient and professional decision-making process. To ensure the independence and transparency of committees, all members of the Audit Committee are outside directors, and more than half of the members of the Recommendation and Nomination Committee for Outside Directors and the Sustainability Management Committee are outside directors. Each committee operates with transparency in accordance with relevant regulations. Committees perform thorough review and discussion on relevant matters before making decisions, thus enhancing the expertise of the deliberation of agendas.

**Audit Committee** The Audit Committee conducts accounting audits, selection of external auditors, and evaluation of business operations according to the internal accounting management system. Whereas the commercial law requires outside directors to be more than two-thirds of the total number of committee members to increase the independence and transparency of the audit, we have applied stricter regulations wherein all committee members are outside directors.

**Recommendation and Nomination Committee for Outside Directors** The Committee consists of two outside directors and one executive director, in accordance with the relevant regulations requiring the majority of the total members to be outside directors. To nominate outside directors in a transparent and fair manner, the candidates are screened by recommending candidates with expertise and independence.

**Sustainability Management Committee** The Sustainability Management Committee, established in March 2020, is responsible for making major decisions related to the establishment and implementation of company-wide sustainability management strategies and performance evaluation. The Committee consists of two outside directors and one executive director, in accordance with the relevant regulations requiring the majority of the total members to be outside directors.

**Expertise and Diversity**

SK Gas considers career and expertise as top priorities for the candidates of directors and discloses qualifications, background of selection and independence requirements to ensure transparency in the process of appointing directors. Currently, the four outside directors have expertise in international relations, law, IT, and accounting and finance. SK Gas holds seminars and supports regular visits to business sites in Korea and abroad which allow them to quickly comprehend the current state of affairs and have a

better understanding of the business.

We will make an effort to expand the expertise of the BOD, as well as increased diversity in terms of gender, ethnic groups, race, religion, politics, and culture etc.

**Performance Evaluation of the Board of Directors**

**Evaluation Method** SK Gas conducts self-evaluation and external evaluation by third parties for the annual activities of the directors. The self-evaluation is based on the attendance rate of the BOD and committee, expertise, contribution, fairness, ethical responsibility, fidelity, and level of activeness in the BOD. In addition, SK Gas participates in the ESG evaluation conducted by the Korea Corporate Governance Service (KCGS) every year to identify the current status of our governance more objectively and to diagnose how well we are performing. In 2019, our excellent performance was recognized both internally and externally by obtaining an A grade in the governance sector.

**Remuneration of the Board of Directors** The remuneration of the directors is paid transparently and fairly through resolutions at the Ordinary General Meeting of shareholders. The remuneration of the executive directors is paid in accordance with the company's performance such as sales, finance, and securing future growth engines, as well as executive management regulations and limits of the director remuneration. The remuneration of the outside directors is paid within the director's remuneration limit, considering the remuneration level of other companies, job performance responsibilities, and whether the outside director is independent. For reference, the actual payment rate compared to the compensation limit of directors in 2019 was 83.3%.

Classification	Unit	2017	2018	2019
Actual payment rate compared to the compensation limit of directors	%	69.7	41.9	83.3

**Disclosure of Evaluation** The results of the BOD evaluation are applied when a director is re-appointed upon the expiration of his/her term and when the relevant committee recommends an outside director. The results are also disclosed in the Corporate Governance Report and the Annual Report.

**Shareholder-Friendly Management**

**Transparent Disclosure** SK Gas holds the Ordinary General Meeting of shareholders and notifies and discloses matters regarding the venue and agenda up to two weeks before the meeting, in accordance with Article 542-4 of the Commercial Act. After the resolution of the General Meeting of shareholders, the confirmed matters are disclosed immediately so as to provide the information to all stakeholders, including shareholders. Major management decisions closely related to the investor interests are disclosed on the Data Analysis, Retrieval and Transfer System (DART), Korea Exchange, and official website of SK Gas.

**Introduction of Electronic Voting System** On March 3, 2020, SK Gas decided to introduce the electronic voting system at the BOD. Subsequently, the electronic voting system and the electronic delegation system were first implemented at the 35th Ordinary General Meeting of shareholders held on March 27, 2020. The electronic voting system allows shareholders to exercise

their voting rights online without having to visit the voting venue once a company registers the list of shareholders and the agendas of the General Meeting of shareholders in the electronic voting system. It is a part of the shareholder-friendly policy that increases convenience by saving cost and time of shareholders', while enhancing shareholders' rights by encouraging them to actively exercise their rights.

**Establishment of Corporate Governance Charter** SK Gas seeks to continually increase its corporate value by creating shareholder value. With recognition of the importance of sound and transparent governance and responsible management, SK Gas established the Corporate Governance Charter in March 2020 which stipulates that SK Gas will enhance the value of stakeholders including shareholders based on continued growth and development. This Corporate Governance Charter was established referring to the codes of best practice for the corporate governance published by the Korea Corporate Governance Service (KCGS). We will continually strive to achieve responsible management through transparent corporate governance.

**Comparison of Best Practices of Corporate Governance**

Classification	Adoption	Note
Introduction of corporate governance charter	O	
Cumulative voting system	X	
Electronic voting system	O	Written voting system is being reviewed for introduction as a medium-term task
Written voting system	X	
Proxy solicitation	O	
Separation of CEO and Chair of the Board of Directors	O	
Composition of the BOD (Majority is outside directors)	O	
Regular BOD meetings	O	
Providing information of directors prior to BOD meetings	O	
Disclosure of BOD activities, attendance rate, and the vote results for major agendas	O	
Establishment of operation regulations for the BOD	O	
Establishment of operation regulations for the Committee	O	
Appointment of independent outside directors	O	
Establishment of specialized committee within the BOD	O	
Policy development and operation for systematic risk management	X	Operation of Integrated Risk Management Committee under the CEO
Compensation insurance for directors at company expense	O	
Evaluation of the BOD activities	X	BOD evaluation system is being reviewed as a mid-term task
Composition of Audit Committee (all members are outside directors)	O	
Holding the meeting of the Audit Committee at least once a quarter	O	
Maintaining independence of external auditors	O	
Authentication of accuracy for business reports, etc.	O	
Establishment of rules on employee ethics	O	
Explanation of the difference between the Best Practices	O	
Disclosure of audit reports and important prompt disclosures in Korean and English	O	



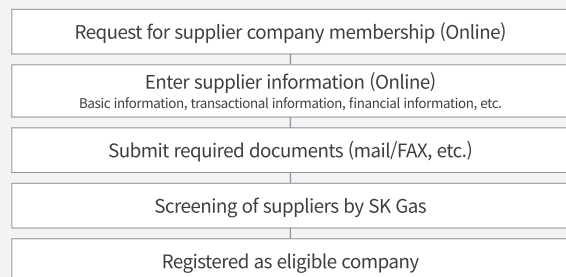
# Sustainable Supply Chain

## Sustainable Management of Supply Chain

**Policy of Supply Chain Management** SK Gas's policy of supply chain management focuses on the 3 goals of 'Safety', 'Environment', and 'Ethical Management'. Based on QCD (Quality, Cost, and Delivery) management, SK Gas integrates its supply chain management system with SHE (Safety, Health, Environment) management and financial and non-financial risk management.

**Online Procurement Management System** Through our online procurement system, 'Withus', SK Gas manages the entire procurement process from the registration of suppliers to evaluation and procurement contract management. This not only provides convenience to suppliers but also ensures fairness.

**Process for Selecting and Evaluating Supplier Companies** SK Gas selects eligible companies that meet corporate requirements through fair procedures and establishes a framework for shared growth with suppliers. SK Gas adopts a comprehensive evaluation which consists of 'SHE Evaluation of Registration' and 'Prequalification (PQ)' to select eligible companies. The SHE Evaluation of Registration comprehensively evaluates the supplier's SHE management system, educational training, accident management, emergency response, health management etc. Only the companies that pass this initial evaluation can participate in the next stage, known as the Prequalification (PQ) stage. In the PQ stage, the technical competency, performance, and financial status of the company are comprehensively evaluated, and if the score exceeds the threshold, the company can qualify as a supplier. However, even if a company passes the comprehensive evaluation, if it is determined to have discrepancies in its ethical management, the company is excluded from the registration of supplier companies. Regarding registered suppliers, we verify that they continue to meet our requirements even after registration by conducting annual evaluations. In addition, in the event of any violations, such as quality issues, anti-trust practices, or practices that are detrimental to shared growth,



we implement disciplinary actions such as bidding restrictions in accordance with our internal regulations so as to raise awareness.

**Communication Activities with Suppliers** SK Gas shares business updates through regular supplier company seminars and conferences. In particular, we listen to the feedback and the difficulties of tank truck transporters and small bulk safety inspectors face through regular training sessions and conferences. Such issues are then addressed and incorporated into our SHE policies. For instance, tank truck drivers have asked us to install speed-warning systems into vehicles to facilitate safe driving. There has also been feedback to make the existing resting areas at Ulsan and Pyeongtaek Terminals more comfortable for drivers, so we are working towards upgrading these areas.



**Communication Activities with Authorized Distributors** SK Gas holds an annual 'Leader's Forum' for all executives of authorized distributors that sell LPG to customers at customer-facing points of contact across the country. By engaging with them to co-create our future vision for the LPG industry and including them in our unique marketing activities, we strengthen the amicable bonds we share with them. Additionally, we hold conferences with agencies on a periodic basis to gather customers' complaints and requests for the industry, and further support our agents' sustainability management through two-way communication activities.



## Support for Shared Growth

SK Gas promotes shared growth by adopting an 'Extended Family' mindset. Under the slogan of 'More Families, Bigger Growth', SK Gas operates the LPG Recharging Hope Fund to support those within the LPG industry, the social ecosystem projects with social enterprises and social ventures, and activities of supplier companies.

**Shared Growth Organization** SK Gas pursues Double Bottom Line (DBL) management, which emphasizes the creation of social value by alleviating social problems together with creating economic value. To achieve this, SK Gas deliberates and decides on the strategic direction of the company through the SV Committee, which is chaired by the CEO, while operating SV management unit to promote CSR projects that advocate for shared growth.

**SK Shared Growth Fund Support** To aid our suppliers who may be facing financial difficulties, we have co-formed a Shared Growth Fund to offer lending support from financial institutions and affiliated companies of SK Group. With the SK Shared Growth Fund, suppliers of SK Gas can secure financial resources required for operations and facilities at interest rates lower than the market.

**Business Management Support for Suppliers** SK Gas provides programs to strengthen the level of business management of supplier companies. The 'CEO Seminar on Shared Growth', held eight times a year for CEOs of our supplier companies, provides lectures on areas that are necessary for executives, such as changes in the business environment and humanities. The biannual 'Shared Growth MBA Program' held for key leaders of supplier companies helps middle managers systematically learn management competencies and take part in specialized courses needed for the global expansion of their companies. All suppliers – whether in the first, second, or third tier – can participate in this program. In addition, we provide SK's online learning platform for all employees of supplier companies.

We support a job fair with supplier companies for the purpose of resolving youth unemployment, which is one of the biggest social issues at the moment, and to alleviate the shortage of manpower in SMEs.

**Welfare Fund Support for Suppliers** We have created a fund with the parking fees collected from our office building, which is then channeled to support welfare activities of supplier companies.

**Subcontract Payment** Under the subcontracting law, payments to subcontractors are to be made within 60 days after the issuance of the tax invoice. SK Gas goes one step further in making payments in cash within 30 days from the issuance date of the tax invoice to relieve the financial burden on suppliers.

SK Gas carried out activities that support tank truck drivers of supplier companies, who continue working hard to transport LPG even amid the difficult situation of COVID-19 (Novel Coronavirus Disease). We offered hand sanitizers and a message of support to the tank truck drivers visiting the bases in the Ulsan and Pyeongtaek Terminals, to share the sentiment that we can work to overcome the crisis together.

In addition, the first disinfection was carried out on March 7, 2020 at all filling stations within the Daegu-Gyeongbuk region, and the second on March 16 to ensure the safety of employees all visiting customers.

## Interview

“Tae-A Inspection & Eng. is a company that conducts gas related inspection and maintenance. We have collaborated and grown together with SK since 1986. SK Gas is a reasonable company that communicates with supplier companies based on a very understanding culture and offers many programs that suppliers can participate in. Tae-A Inspection & Eng. has been regularly attending SK Group's shared growth seminars. We have also received much support for the growth of our company by attending events related to management improvement.

We believe that suppliers' efforts have contributed to SK Gas' growth, in addition to efforts of employees and technological developments, and hope such long-term partnerships with suppliers will be long lasting. In the 1960s and 1970s, quantitative growth was considered to be an important value. However, qualitative values such as safety and environment have also grown in importance. I believe that it would be effective for SK Gas to achieve this through collaborations with suppliers. Through such efforts, I believe that we will achieve not only the growth of SK Gas and its suppliers, but contribute to the development of our entire society.

”



Lee, Jaehan  
CEO of Tae-A Inspection & Eng. Co., Ltd.



# Human Rights

## Human Rights Management System

**Establishment of Human Rights Regulations** In 2020, SK Gas established and announced our Declaration of Human Rights and Human Rights Regulations in accordance with international standards such as the Universal Declaration of Human Rights, UN Global Compact (UNGC), and UN Guiding Principles on Business and Human Rights. Through the Declaration of Human Rights and the Human Rights Regulations, SK Gas has defined anti-discrimination, prohibition of child labor, workplace safety and environment, and human rights of local residents as core human rights issues. This applies not only to employees of SK Gas, but also to all stakeholders involved in all business operations, such as suppliers and local communities. SK Gas's Human Rights Regulations contains the content required for the establishment of the human rights management system, such as defining major human rights issues, the department responsible for human rights management, training, and human rights impact assessment.

SK Gas plans to regularly review the Human Rights Regulations and revise them to reflect changes to international human rights standards.

**Checklist for the Human Rights Impact Assessment** SK Gas has developed a checklist for human rights impact assessment to prevent possible human rights violations that may occur during business activities. The checklist was established based on the UN Guiding Principles on Business and Human Rights, Global Compact Self-Assessment Tool, and OECD Guidelines for Multinational Enterprises, and it is used to assess all policies and systems of SK Gas. The items of assessment include indicators for identifying overall human rights risks such as human rights policy development, health and safety, personal information protection, business partner and supply chain management, local community influence, forced labor, child labor, and non-discrimination.

**Assessment of Human Rights Impact** In 2020, we conducted a human rights impact assessment with a professional consulting company. Potential risks to human rights were identified in the process of conducting this assessment. We plan to reflect the results of identifying areas of improvement to our medium to long-term tasks. The human rights impact assessment is planned to be conducted annually. Stakeholder surveys and in-depth interviews will be conducted as well to identify human rights risks and vulnerable groups in more detail. In addition, the results of the assessment will be transparently disclosed to all stakeholders through the Sustainability Report and our website.

**Initiation of Human Rights Education** SK Gas has been regularly delivering human rights educations to spread human rights awareness within the organization. In 2019, human rights educations on preventing sexual harassment and workplace harassment, and improving awareness of persons with disabilities were conducted. In 2020, the content of existing courses will be improved based on the results of the human rights impact assessment. Also, we are planning to expand and conduct human rights education, utilizing the educational platform of SK Group.

## Improvement of Quality of Life

### Family-friendly System

Classification	Program	Detail
Pregnancy Maternity Childcare	Leave before and after childbirth	90 days before and after childbirth
	Childcare Leave	1 year
	Spouse maternity leave	Legal leave and payment of congratulatory money for childbirth
	Leave for miscarriage or stillbirth	Grant of legal leave
Family-friendly	Summer vacation	4 days, in addition to the legal annual leave
	Wedding anniversary leave	1 day
	Company-wide annual leave	Encouraging taking days off linked to public holidays
	Medical expense support	Employee/ spouse/children/ employee's parents/ spouse's parents
	Medical examination for spouse	Every 2 years for employee's spouse over 35 years of age
	Support for celebrations and condolences	Special leaves, Gift/Condolence money, Funeral item
	Support of educational expenses	Kindergarten/primary school/ middle school/high school/ university
	Loan support	Housing, stable living funds, etc.
	Support for one-person household workers transferred to a remote region	Granting transportation expenses for family visits every week
	Company library	Available for family members

**Employee Welfare System** SK Gas supports various welfare programs to enhance the level of work satisfaction of employees and for them to lead healthy and happy lives. We operate a variety of programs such as support for leisure, family, and housing. In addition, we run a retirement support program so that employees can design their second career even after retirement from SK Gas.

**Employee Hygiene and Health Care Reinforcement** SK Gas promotes health care and disease prevention activities that allow employees to work in a pleasant working environment. To promote oral hygiene among employees, a dental clinic is provided at the company so that employees can use its services even during working hours, and at a subsidized cost. Regular flu shots and medical expenses are provided every year. In addition, customized detailed medical examinations are available to employees over 40, while medical examinations including psychological examinations are available to all employees on an annual basis. Meanwhile, we have a fitness center with excellent facilities which also offers yoga and FX (functional exercise) programs. We operate a cafeteria that provides well-balanced meals, while employees can also take their breaks at the cafe locate in the company building. SK Gas spares no effort in ensuring the health and well-being of all employees and providing them with a safe, employee-friendly working environment.

**Maternity and Childcare Leave** We actively promote and implement support policies such as maternity leave and childcare leave for our employees. The rate of return to work after childcare leave for employees who use the childcare leave was 100% (as of 2019). Likewise, we foster a culture where employees can freely utilize their childcare leave entitlement.

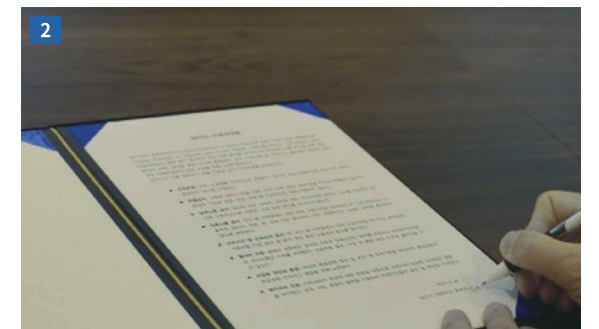
**Work-Life Balance** SK Gas strives to create a corporate culture where work and family are compatible. The flexible working system implemented since 2018 allows employees to determine their work time according to their needs. This enhances work efficiency and is used as a policy to enhance our employees' quality of life.

### Employee Communication

**Active Communication with Employees** Our CEO, leaders, and employees actively communicate with one another through various online and offline channels. Recently, we allowed for closer communication by expanding direct forms of communication between our CEO and employees. At the SK Group level, top management's Happiness Talk and programs for social value sharing are actively being conducted.

At SK Gas, our CEO directly shares important issues of the company and discusses matters such as how to innovate the way we work and how to improve employee happiness with employees through the Happy Seed Conversation Program and CEO Town Hall Meetings.

**Employee Satisfaction** SK Gas listens to the opinions of employees through diverse channels such as the company's Intranet bulletin board and regular interviews to monitor the level of satisfaction within the company. An annual 'SK Gas Culture Survey' is conducted on all employees to determine the level of our corporate culture. The survey consists of 2 areas: effectiveness of corporate culture and SKMS practices. SK Gas improves corporate culture by utilizing the results of the survey as a means to respect the opinions of employees and explore ways to improve work productivity.



1. CEO Town Hall Meeting  
 2. Declaration of human rights management  
 3. Cooperation with UN Global Compact  
 4. Fitness Center



## R&D

### LPG Business R&D

To enhance the competitiveness of our core LPG business, we continue to conduct R&D related to the LPG industry with the Korea LPG Association.

**Development of LPG Vehicle Technology** We conduct research to improve the efficiency and output performance of LPG vehicles and to expand their adoption for transportation needs. One such achievement has been to develop a mass production technology for LPG donut tanks to solve the issues related to trunk space, which was one of the biggest inconveniences to LPG vehicle drivers.

**Research on LPG Eco-friendliness** Through the Life Cycle Assessment (LCA) Report (LPG vs Diesel 2019), which analyzes the environmental impact generated throughout the entire business value chain, we are actively conducting research on the eco-friendly aspect of LPG compared to existing fossil fuels.

### Development of Atmospheric Environment Technologies

With the aim to reduce NOx and yellow plume incurring at the PDH operation process, SK Gas is developing atmospheric environment technologies through Open Innovation (industry-academia-research cooperation). This technology not only resolves the problems incurring at the PDH operation but can also be used as a denitrification technology in LNG power generation and is thereby expected to be exported globally.

### R&D Performance

Item	Classification	Unit	2017	2018	2019	2020 (Target)
R&D Activities and Investment	R&D Human Resources	Persons	7	9	9	10
	R&D Investment	KRW 100 million	1.54	4.29	3.59	4.06
	R&D Investment Ratio to Revenue	%	24%	78%	60%	-
	Revenue	KRW 100 million	6.35	5.47	5.98	-
Status of Intellectual Property Rights (Cumulative)	Patent	EA	3	4	6	9

### Technical Support for PDH Sector

We support the stable operations of the PDH process with providing technical consulting such as resolving issues that arise during the design process and introducing new technologies. The outstanding capabilities of SK Gas in the PDH O&M field has been recognized as an important intangible asset in the business with global companies. Based on such capabilities, we were able to win the bid for a project in which we will share our experience and knowledge in PDH with INEOS from Europe, and we are also embarking on a PDH/PP joint venture with APC from Saudi Arabia through equity investment.

In an effort to expand our expertise in PDH into a licensed technology, SK Gas is developing a new process which uses next-generation eco-friendly Chromium-free catalysts, together with the Korea Research Institute of Chemical Technology. In addition, SK Gas is conducting a pilot for a new FPDH process, which is needed for the commercialization of the technology.



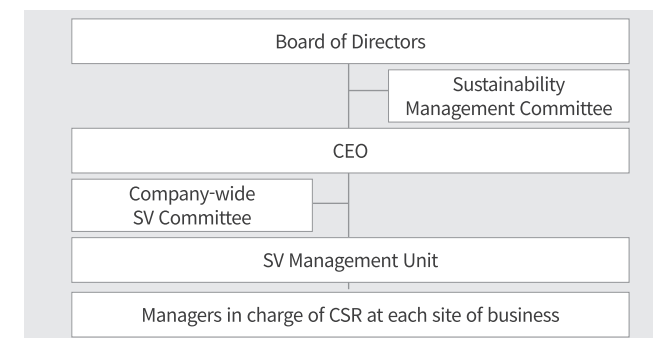
## CSR

### Corporate Social Responsibility System

SK Gas contributes to our society through various programs based on sincere and thoughtful considerations. To create a society where the company and the local community can be happier together, we selected four directions for such contributions, which include Environment Friendliness, Social Welfare, Spreading of Happiness, and Shared Growth, with the mission of 'Realizing a Sustainable Happy Ecosystem.' Our core activities include 'Environment Education,' such as environment conservation activities, 'Hope Maker,' supporting the underprivileged by sponsorship and regular volunteer work, 'Sponsorship to Social Foundation,' such as the Plato Academy, and the LPG Recharging Hope Fund, supporting people in the LPG industry. These programs are carried out at each business site or a company-wide basis or in cooperation with SK Group.

Mission	Realization of a Sustainable Happy Ecosystem			
Direction	Sustainable	Local Community	Spreading of Happiness	Shared growth
	Happiness shared through sustainable management practices	Happiness shared with the underprivileged in the local community	Happiness shared through humanities/culture and arts	Happiness shared with the 'Extended Family'
Core Business	Environmental Education (Happy Green School)	Hope Maker (sponsorship/regular volunteer work)	Support the proliferation of the study of humanities	LPG Recharging Hope Fund
UN SDGs	Support for purchase of organic agricultural products Participation in ecosystem protection activities	Support for the underprivileged Happiness Sharing Season	Humanities Culture and arts	SE/Social Venture Ecosystem Support for suppliers

### Organization for Promoting Contributions to the Community



SK Gas operates SV Management Unit as a specialized organization dedicated to coordinating contributions to the community. SV Management Unit implements such contribution projects according to the CSR strategic system and annual business plan deliberated and decided by the Sustainability Management Committee under the Board of Directors and the company-wide SV Committee under the CEO.

### CSR aligned with UN SDGs

SK Gas links the UN SDGs (Sustainable Development Goals) and its four areas of CSR to do its part in achieving the goal of the sustainable development, which the international community is working towards together. SK Gas pursues nine of the UN SDGs through its contributions to the community and they include: Eco-friendliness (Climate Action, Life below Water, Life on Land); Social Welfare (No Poverty, Reduced Inequalities); Spreading of Happiness (Good Health and Well-Being, Quality Education); and Shared Growth (Decent Work and Economic Growth, Reduced Inequalities).

**Eco-friendliness Project** We carry out activities that contribute to a healthy, safe, and eco-friendly life for local communities by providing education on Eco-friendliness, activities for purification of environment, and purchasing organic agricultural products. One such program is 'Happy Green School,' a program that provides education on Eco-friendliness for elementary school students. It is a program that helps elementary school students understand the seriousness of air and ocean pollution using a board game developed by SK Gas. The program has been designed to share practical ideas to create a clean earth in everyday life. As part of this program, SK Gas employees have been visiting elementary schools in the vicinity of the business as daily lecturers.

**Support Project for the Underprivileged in the Local Community** This project supports the growth of children and teenagers from low-income households. SK Gas communicates directly with our beneficiaries to understand their difficulties and then offers assistance through volunteer work by employees, product sponsorship, and scholarship opportunities. 'Hope Maker' is a key initiative that supports the underprivileged in the local community. 'Hope Maker' consists of projects to provide financial support such as regular monthly and irregular sponsorships for children and teenagers of low-income households. It also comprises the 'Hope Maker School', which provides emotional support to students while helping them foster their talents in after-school courses and mentoring programs.

This project, which began in 2012, program supports 26 graduates and around 60 children and teenagers annually.

**Spreading of Happiness** SK Gas works to share the happiness that we pursue with the community. To establish the right values for 'Happiness' in our society, we support various projects by the 'Plato Academy' and the 'Chey Institute for Advanced Studies'.



**Support for Plato Academy** SK Gas adopted the study of humanities as a means to spread the culture of happiness to society. We hope to present our society with opportunities to study humanities, which – like seeds – bear fruit of happiness over time. It is difficult to find nearby opportunities to study humanities. While searching for a solution, the conclusion we reached was ‘Foundation Academia Platonica’. The Foundation Academia Platonica, the first foundation supporting the research of pure humanities in Korea, was established to deepen and spread the ‘Humanities of Reflection,’ which pursues the universal spirit of humanity and excellence in character. The Plato Academy supports universities and research institutes that study humanities by providing lectures on the subject and supporting humanities clubs for university students. The Academy’s main projects are divided into projects that advance and expand the study of humanities.

**Advanced Humanities** : The Academy prepares the steppingstones for the spread of the study of humanities in the medium to long-term by supporting world-class, in-depth research in the humanities. This includes supporting academic projects and humanities research commissioned in domestic and overseas universities and research institutes.

**Expansion of the Study of Humanitie** : This business aims to progress one step further from studies at universities or research institutes. Its goal is to spread the study of humanities through various education, scholarship, and culture projects which can help create a more beautiful world. Public lectures and clubs for university students are platforms where people exchange knowledge and share thoughts about the humanities. Publication projects such as the ‘Life Textbook’ also deliver knowledge pertaining to the humanities.

**Support for Chey Institute for Advanced Studies** Chey Institute for Advanced Studies was established in 2019 to commemorate the 20th anniversary of the passing of former Chairman Chey Jong-hyun and to realize the will of Chey who dreamed of making ‘Korea the best country in the world through academic studies’. Chey Institute for Advanced Studies is a non-profit foundation serving public interest, and it was established to spearhead social innovation and future development by generating creative knowledge and presenting practical alternatives. Its main activities include the establishment of an academic infrastructure to create knowledge and contribute to policies, discover strategic research agendas which contribute to social development, and allow for international academic exchange. An online platform which provides contents that can be easily understood by the general public was built so as to reach a greater audience. SK Gas, which was with the Institute since its founding, continues to support research and conferences.

**Arete Tour** SK Gas conducts annual Arete Tours to expand the consensus of the humanities support projects and to improve employee knowledge in the humanities. The tour offers an opportunity to experience the humanities through the participation in lectures by top experts in the Renaissance field which are held at European cultural sites.

**Shared Growth Project** These are initiatives that aim to support customers, supplier companies, and the local community in the realization of happy and mutual growth. They include the LPG Recharging Hope Fund which is for major customers of the LPG industry and the local community, the supporting project for employees of supplier companies and the supporting project for social enterprise ecosystem.

**Support for Recharging Hope Fund** We created the Recharging Hope Fund in 2012 together with E1, a company in the same industry, with the goal of making the world a better place with energy. The LPG Recharging Hope Fund is mainly used to sponsor scholarships for children in the taxi industry, support access to LPG pipeline networks for remote region, and to improve the LPG supply equipment for social welfare institutes. It is also used to support regions affected by forest fires, as well as to promote the safety of the school transport for children The ‘Scholarship for Children in the Taxi Industry’ is for university students who achieve excellent academic results in spite of less privileged backgrounds, of those whose parent has been in the taxi industry for more than one year. This project supports scholarship around 250 students every year and has supported about 1,900 students until today.

**Internalization of the Pursuit of Social Value**



SK Gas carries out various programs that encourage employees to actively participate in the pursuit of social value in daily life and form a sympathy with social value driving.

**SV Coin Program** Encourages employees to put SV principles into practice as an individual, as a member of society, or as an employee. It grants SV coins to employees whenever they mine a type of social value by taking SV learning course, participating in volunteer activities to serve the community, SV activities into practice in daily life, or an idea suggesting for the SV based business models. The SV Coins that employees have saved during the year can be used for purchasing items at a shopping mall run by a social enterprise, or for donating to the vulnerable children and teenagers of ‘Hope Maker’, a CSR program of company. These types of SV Coin consumptions generate another tier of social value.

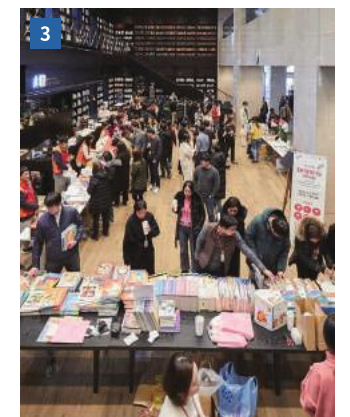
**SV Mascots Design** In 2019, we developed mascots for SK Gas in collaboration with a student. This student was one of the teenagers supported by the Hope Maker and preparing to major in art and design in college. The characters were created by combining the concept of meerkats which live cooperatively in a group, and the community concept of the Three Musketeers who used to shout, “One for all, All for one”. These characters demonstrate the will of all employees of SK Gas to create SV in our daily lives and at work.

**Employees’ SV Activities** Employees of SK Gas participate in various SV activities throughout the year. Among the activities, CPR training and blood donation were selected as the most worthwhile programs for social values by the employees. These two programs emphasize how necessary the active practice of social value together with economic value is to keep our society sustainable, just like how a healthy heart and plentiful blood are essential for human life.

We have prepared CPR training courses at the company-level. Many people acknowledge the importance of CPR but do not know how to do it accurately. In 2019, a total of 138 keen employees completed the courses in four separate sessions. In addition, CPR Zones were set up at each business site to support repetitive training so that the employees can continue to take interest in CPR even after the initial training. Furthermore, a Group-wide blood donation program was actively promoted to encourage employees to make blood donations.

	Participation in Blood Donation <b>Participants</b> 158 persons <b>Participation Rate</b> 38%		Completion of CPR Training Course <b>Participants</b> 138 persons <b>Participation Rate</b> 34%
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1. Symposium of Chey Institute for Advanced Studies
2. CPR training
3. Neighborhood Help Bazaar at the year-end
4. SK Pro bono narration volunteering
5. Cold protection kit for the underprivileged
6. Happy Green School
7. SV Mascot
8. Hope Maker





## ESG Performance **Economy**

### Revenue and Operating Profit

Classification	Unit	2017		2018		2019		
		Amount	Percentage	Amount	Percentage	Amount	Percentage	
Gas Business	Revenue	KRW 1 million	6,358,872	100%	6,859,164	100%	4,931,074	100%
	Operating Profit	KRW 1 million	99,373	101.7%	104,991	101.9%	193,468	102.1%
	Total Assets	KRW 1 million	2,972,757	68.3%	3,456,401	92.0%	3,974,696	97.4%
Others	Revenue	KRW 1 million	25	0%	-	-	-	-
	Operating Profit	KRW 1 million	(1,653)	(1.7%)	(1,992)	(1.9%)	(3,890)	(2.1%)
	Total Assets	KRW 1 million	1,378,991	31.7%	299,207	8.0%	107,721	2.6%

\* Gas Business Division: Import, storage, and sales of chemical products such as LPG  
Others: Energy generation, etc.

### Share Distribution and Dividend Status

Classification	Unit	2017		2018		2019	
		Amount	Percentage	Amount	Percentage	Amount	Percentage
Share Distribution Status	SK Discovery (the largest shareholder)	%	45.6	45.6	45.6	65.3	
	SK Syntec	%	10.0	10.0	10.0	0.0	
	Treasury Stock	%	3.3	3.2	3.2	3.2	
	Employee Stock Ownership Association	%	1.9	1.4	1.4	1.2	
	Others	%	39.3	39.8	39.8	30.3	
Dividend Status	Total Cash Dividend Amount	KRW 100 million	226	263	263	265	
	Cash Dividend Amount Per Share	The largest shareholder	KRW	2,600	3,000	3,000	
		Minority, other shareholders	KRW	2,600	3,000	3,000	
	Share Dividend Amount Per Share	The largest shareholder	Shares	0.1	0.1	0.1	
		Minority, other shareholders	Shares	0.1	0.1	0.1	
	Number of Share Dividend Shares	Shares	86,771	87,614	87,614	88,463	

\* No preferred stock.

### Economic Performance Distribution

Classification	Unit	2017		2018		2019	
		Amount	Percentage	Amount	Percentage	Amount	Percentage
Economic Value Distribution	Employees	Total Amount of Annual Compensation	KRW 100 million	381	404	476	
		Average Amount of Compensation Per Capita	KRW 100 million	0.98	0.99	1.16	
Government	Tax Payment	KRW 100 million	453	512	984		
	Suppliers	Goods Purchased	KRW 100 million	750	557	616	
	Shareholders and Investors	Dividend Payout	KRW 100 million	230	267	270	

\* Tax Payment : Sum total of corporate tax, corporate local income tax, and special tax for rural development  
\* Dividend Payout : Sum total of cash and share dividends

### Statement of Financial Position (Consolidated)

The 35<sup>th</sup> Period, As of December 31, 2019  
The 34<sup>th</sup> Period, As of December 31, 2018  
The 33<sup>rd</sup> Period, As of December 31, 2017

Classification	Unit	The 33 <sup>rd</sup> Period	The 34 <sup>th</sup> Period	The 35 <sup>th</sup> Period
<b>Assets</b>				
Total current assets	KRW	2,106,455,293,325	1,609,767,813,662	1,713,781,802,069
Cash and cash equivalents	KRW	263,474,452,292	80,287,600,328	135,728,393,431
Short-term financial assets	KRW	138,869,854,536	116,203,993,516	196,049,931,897
Current trade and other receivables, net	KRW	790,936,739,094	752,742,499,021	657,581,162,178
Current derivative assets	KRW	64,001,174,819	258,998,851,466	124,889,642,335
Inventories	KRW	548,411,278,016	305,724,973,244	377,511,627,691
Other current financial assets	KRW	9,490,288,623	32,210,374,502	171,501,875,679
Other current assets	KRW	291,271,505,945	63,599,521,585	50,519,168,858
Total non-current assets	KRW	2,245,292,267,948	2,145,839,428,123	2,368,635,521,114
Long-term financial assets	KRW	302,722,263,644	264,614,119,867	70,041,824,663
Non-current trade and other receivables, net	KRW	-	-	2,530,461,984
Non-current derivative assets	KRW	3,349,000,000	33,437,606,440	16,766,713,518
Investments in associates and joint ventures	KRW	335,818,097,397	524,602,065,108	617,794,364,901
Property, plant and equipment, net	KRW	1,178,782,273,072	985,468,452,876	927,697,328,242
Investment property	KRW	31,367,248,377	-	-
Intangible assets, net	KRW	305,362,278,255	268,602,854,559	111,016,405,045
Lease right-of-use assets	KRW	-	-	510,232,945,294
Other non-current financial assets	KRW	41,773,955,719	31,401,717,373	35,357,781,648
Other non-current assets	KRW	39,912,500,000	37,712,611,900	35,262,500,000
Deferred tax assets	KRW	6,204,651,484	-	41,935,195,819
Total assets	KRW	4,351,747,561,273	3,755,607,241,785	4,082,417,323,183



**Statement of Financial Position (Consolidated)**

The 35<sup>th</sup> Period, As of December 31, 2019  
 The 34<sup>th</sup> Period, As of December 31, 2018  
 The 33<sup>rd</sup> Period, As of December 31, 2017

Classification	Unit	The 33 <sup>rd</sup> Period	The 34 <sup>th</sup> Period	The 35 <sup>th</sup> Period
<b>Liabilities</b>				
Total current liabilities	KRW	1,521,920,212,550	1,500,614,810,053	1,570,402,383,596
Trade and other payables	KRW	410,215,780,674	407,665,182,588	421,640,755,338
Short-term borrowings	KRW	811,743,685,962	682,939,189,709	596,602,364,979
Current portion of long-term borrowings	KRW	130,001,270,000	122,809,060,561	155,668,211,858
Current derivative liabilities	KRW	84,920,800,145	250,812,978,089	213,460,392,425
Current tax payables	KRW	17,551,915,122	13,821,691,996	99,760,520,994
Current portion of lease liabilities	KRW	-	-	73,380,550,167
Other current liabilities	KRW	67,486,760,647	22,566,707,110	9,889,587,835
Total non-current liabilities	KRW	1,046,385,474,888	612,210,223,389	851,193,167,668
Bonds payable	KRW	525,805,527,150	349,276,661,322	319,137,586,729
Long-term borrowings	KRW	317,168,113,124	11,700,993,124	5,986,713,124
Non-current derivative liabilities	KRW	783,218	41,086,578,982	3,720,526,925
Defined benefit liability	KRW	2,797,405,108	1,283,946,752	2,870,301,157
Deferred tax liabilities	KRW	131,035,558,657	151,168,108,078	50,085,898,490
Non-current lease liabilities	KRW	-	-	437,814,498,734
Other non-current financial liabilities	KRW	69,578,087,631	57,564,694,614	31,459,512,374
Other non-current liabilities	KRW	-	129,240,517	118,130,135
Total liabilities	KRW	2,568,305,687,438	2,112,825,033,442	2,421,595,551,264
<b>Equity</b>				
Total equity attributable to owners of the parent	KRW	1,497,270,739,056	1,566,200,969,021	1,660,821,771,919
Issued capital	KRW	44,836,980,000	45,270,835,000	45,708,905,000
Capital surplus	KRW	191,941,883,883	191,941,883,883	191,941,883,883
Treasury stock	KRW	(9,694,137,527)	(9,465,211,466)	(22,726,474,279)
Accumulated other comprehensive income	KRW	78,265,400,863	116,964,108,021	(10,811,313,275)
Retained earnings	KRW	1,191,920,611,837	1,221,489,353,583	1,456,708,770,590
Non-controlling interests	KRW	286,171,134,779	76,581,239,322	-
Total equity	KRW	1,783,441,873,835	1,642,782,208,343	1,660,821,771,919
Total liabilities and equity	KRW	4,351,747,561,273	3,755,607,241,785	4,082,417,323,183

**Statement of Comprehensive Income (Consolidated)**

The 35<sup>th</sup> Period, As of and for the years ended December 31, 2019  
 The 34<sup>th</sup> Period, As of and for the years ended December 31, 2018  
 The 33<sup>rd</sup> Period, As of and for the years ended December 31, 2017

Classification	Unit	The 33 <sup>rd</sup> Period	The 34 <sup>th</sup> Period	The 35 <sup>th</sup> Period
Sales	KRW	6,358,897,429,318	6,859,163,776,452	4,931,073,628,033
Cost of sales	KRW	6,026,471,582,271	6,557,948,183,797	4,521,732,780,915
Gross profit	KRW	332,425,847,047	301,215,592,655	409,340,847,118
Selling and administrative expenses	KRW	234,705,862,857	198,216,540,095	219,762,495,196
Operating income	KRW	97,719,984,190	102,999,052,560	189,578,351,922
Financial income	KRW	317,101,729,992	586,958,431,767	428,077,965,647
Financial costs	KRW	325,891,858,723	590,409,576,634	596,940,109,905
Other non-operating income	KRW	20,450,166,830	10,427,223,966	23,877,621,937
Other non-operating expenses	KRW	25,282,644,512	129,594,140,808	5,505,213,822
Share of profit or loss in an associate or joint venture	KRW	38,196,476,149	43,139,242,598	51,420,956,664
Profit before income tax from continuing operations	KRW	122,293,853,926	23,520,233,449	90,509,572,443
Income tax benefit (expense) from continuing operations	KRW	(40,809,541,112)	(39,960,497,610)	8,917,590,661
Net profit for the year from continuing operations	KRW	81,484,312,814	(16,440,264,161)	99,427,163,104
Profit before income tax from discontinued operations	KRW	92,822,394,781	94,706,096,734	72,713,120,403
Income tax expense from discontinued operations	KRW	(24,407,600,911)	(22,827,389,112)	(18,021,675,593)
Net profit for the year from discontinued operations	KRW	68,414,793,870	71,878,707,622	54,691,444,810
Profit before income tax	KRW	215,116,248,707	118,226,330,183	163,222,692,846
Income tax expense	KRW	65,217,142,023	62,787,886,722	9,104,084,932
Net profit for the year	KRW	149,899,106,684	55,438,443,461	154,118,607,914



## Statement of Comprehensive Income (Consolidated)

The 35<sup>th</sup> Period, Jan.1 to Dec. 31, 2019  
 The 34<sup>th</sup> Period, Jan.1 to Dec. 31, 2018  
 The 33<sup>rd</sup> Period, Jan.1 to Dec. 31, 2017

Classification	Unit	The 33 <sup>rd</sup> Period	The 34 <sup>th</sup> Period	The 35 <sup>th</sup> Period
Other comprehensive income	KRW	24,676,833,936	44,032,864,455	-23,742,199,682
Items reclassified subsequently to profit or loss	KRW	26,299,337,603	7,822,028,376	-5,095,294,908
Net change in fair value of available-for-sale ("AFS") financial assets (other comprehensive income after tax)	KRW	49,121,574,576	-	-
Equity adjustments in equity method	KRW	(7,304,350,103)	3,658,598,871	3,972,731,522
Retained earnings in equity method	KRW	-	-	(5,501,433,893)
Net loss on valuation of derivatives	KRW	(1,832,515,083)	(28,775,963)	(7,200,659,294)
Net gain from translation of foreign operations	KRW	(13,685,371,787)	4,192,205,468	3,634,066,757
Items not reclassified subsequently to profit or loss	KRW	(1,622,503,667)	36,210,836,079	(18,646,904,774)
Net gain (loss) of financial assets measured at fair value through other comprehensive income	KRW	-	38,329,559,200	(16,328,872,296)
Re-measurement loss on defined benefit plans	KRW	(1,622,503,667)	(2,118,723,121)	(2,318,032,478)
Total comprehensive income for the year, net of tax	KRW	174,575,940,620	99,471,307,916	130,376,408,232
Net profit for the year from continuing operations Attributable to:				
Owners of the parent	KRW	82,108,930,473	21,493,633,330	99,427,163,104
Non-controlling interests	KRW	(624,617,659)	(37,933,897,491)	-
Net profit for the year Attributable to:				
Owners of the parent	KRW	102,082,715,318	59,760,287,636	158,868,637,822
Non-controlling interests	KRW	47,816,391,366	(4,321,844,175)	(4,750,029,908)
Total comprehensive income for the year, net of tax Attributable to:				
Owners of the parent	KRW	129,819,342,304	103,324,559,117	135,109,156,580
Non-controlling interests	KRW	44,756,598,316	(3,853,251,201)	(4,732,748,348)
Earnings Per Share				
Basic and diluted, profit for the year attributable to owners of the parent	KRW	11,532	6,753	17,957
Basic and diluted, profit for the year from continuing operations attributable to owners of the parent	KRW	9,276	2,429	11,238

## ESG Performance SHE

## Environmental Performance (Ulsan/Pyeongtaek Terminals and G.Hub)

Classification	Unit	2017	2018	2019		
Energy	Energy Consumption	TJ	571	600	616	
	By category	Fuel	tons	7,887	7,948	8,017
		Electricity	MWh	16,940	19,493	19,596
		Steam	MWh	0	0	0
Greenhouse Gas	Total Greenhouse Gas Emissions (Scope 1 & 2)	tCO <sub>2</sub> eq	31,832	32,559	35,664	
	By category	Total direct emissions (Scope 1)	tCO <sub>2</sub> eq	23,224	23,506	26,331
		Total indirect emissions (Scope 2)	tCO <sub>2</sub> eq	8,608	9,053	9,333
Water Consumption	Total volume of water usage	m <sup>3</sup>	16,311	21,351	19,125	
	By category	Municipal water supplies	m <sup>3</sup>	16,311	21,351	19,125
		Groundwater (freshwater)	m <sup>3</sup>	0	0	0
		Rainwater	m <sup>3</sup>	0	0	0
		Percentage of recycled water	%	0	0	0
Water Pollutants	COD emission	tons	0	0	0	
	BOD emission	tons	0	0	0	
	SS emission	tons	0	0	0	
Wastewater	Wastewater Treatment	tons	0	0	0	
	Total volume of generated waste	tons	22.98	40.17	37.54	
Waste	By treatment method	Internally processed (landfill)	tons	0	0	0
		Processed by agent (incineration, landfill)	tons	22.98	40.17	37.54
		Processed by agent (recycling)	tons	0	0	0
		Recycle ratio	%	0	0	0
	By category	Designated (Hazardous) waste	tons	10.48	24.68	18.51
		General waste	tons	12.50	15.49	19.03

\* Wastewater was not generated and sewage was treated by local treatment facilities under the contract.



Environmental Performance (Ulsan/Pyeongtaek Terminals and G.Hub)						
Classification		Unit	2017	2018	2019	
Air pollutants	NOx emission	tons	18.14	18.14	18.14	
	SOx emission	tons	0.08	0.08	0.08	
	VOCs emission	tons	0	0	0	
	Hydrocarbon emission	tons	0	0	0	
	Methane emission	tons	0	0	0	
	Dust emission	tons	0.55	0.55	0.55	
Concentration of Air Pollutant Discharge	NOx concentration (Not applicable for G.Hub)	Business site of Ulsan Terminal	ppm	76.85	76.85	76.85
		Legal standard of Ulsan Terminal	ppm	150	150	130
		Business site of Pyeongtaek Terminal	ppm	126	126	126
		Legal standard of Pyeongtaek Terminal	ppm	150	150	130
	SOx concentration (Not applicable for G.Hub)	Business site of Ulsan Terminal	ppm	0.24	0.24	0.24
		Legal standard of Ulsan Terminal	ppm	270	270	270
		Business site of Pyeongtaek Terminal	ppm	0.28	0.28	0.28
		Legal standard of Pyeongtaek Terminal	ppm	100	100	270
	Dust concentration (Not applicable for G.Hub)	Business site of Ulsan Terminal	mg/Sm <sup>3</sup>	4.85	4.85	4.85
		Legal standard of Ulsan Terminal	mg/Sm <sup>3</sup>	30	30	30
		Business site of Pyeongtaek Terminal	mg/Sm <sup>3</sup>	4.85	4.85	4.85
		Legal standard of Pyeongtaek Terminal	mg/Sm <sup>3</sup>	30	30	30
Hazardous Chemicals	Volume of generated hazardous chemicals	tons	0	0	0	

\* Hazardous Chemicals: Based on reporting materials from the Ministry of Environment  
 \* Greenhouse Gas emissions, Concentration of Air Pollutant Discharge are not applicable for G.Hub

Violation Status of Environmental Laws and Regulations						
Classification		Unit	2017	2018	2019	2020 (Target)
Violation of Environmental Laws and Regulations	Punishment exceeding fines	Number of incidents	0	0	0	0
		Amount	KRW 1 million	0	0	0
	Fine (More than USD 10,000)	Number of incidents	0	0	0	0
		Amount	KRW 1 million	0	0	0

Occupational injury rate						
Classification		Unit	2017	2018	2019	2020 (Target)
Occupational injury	Occupational injury rate		%	0	0	0
	Occupational Illness Frequency Rate (OIFR)		%	0	0	0
	Lost Time Incident Rate (LTIR)		Incident per one million work hours	0	0	0
	Total Recordable Incidents Rate (TRIR)		Incident per one million work hours	0	0	0

\* Occupational injury rate(based on the Enforcement Decree of the Occupational Safety and Health Act): (Number of the occupational injured/Total number of employees) x100  
 \* Occupational Illness Frequency Rate (OIFR): Number of occupational illness occurred x1,000,000/Total number of work hours  
 \* Lost Time Incident Rate (LTIR): Number of lost time incidents x1,000,000/Total number of work hours  
 \* Total Recordable Incidents Rate (TRIR): Total number of recordable incidents x1,000,000/Total number of work hours

SHE Education Performance						
Classification		Unit	2017	2018	2019	2020 (Target)
Occupational health and safety	Participants		Persons	264	283	270
	Training Hours		Hours	3,706	4,207	4,014
	Education Expenses		KRW	5,530,000	10,974,000	17,396,000
	Education hours per employee		Hours	14.0	14.9	14.9
	Education expense per employee		KRW	20,947	38,777	64,430
Environment related education	Participants		Persons	51	55	109
	Training Hours		Hours	417	584	525
	Education Expenses		KRW	1,888,000	2,993,500	5,000,000
	Education hours per employee		Hours	8.2	10.6	4.8
	Education expense per employee		KRW	37,020	54,427	45,872



## ESG Performance **Society**

Employees Status			2017	2018	2019
Classification	Unit				
<b>Total workforce</b>	<b>Number of employees</b>	<b>Persons</b>	<b>384</b>	<b>463</b>	<b>467</b>
By employment type	Regular	Persons	348	438	431
		%	91	95	92
	Non-regular	Persons	36	25	36
		%	9	5	8
By gender	Male	Persons	305	379	378
		%	79	82	81
	Female	Persons	79	84	89
		%	21	18	19
Management	Male	Persons	52	75	78
		%	93	91	91
	Female	Persons	4	7	8
		%	7	9	9
Employee Status by Category New Recruitment	Under 30	Persons	73	66	61
		%	19	14	13
	30 to 54	Persons	244	310	310
		%	64	67	66
	50 and over	Persons	67	87	96
		%	17	19	21
Minorities	Disabled	Persons	7	5	11
		%	1.8	1.2	3.1
	Patriots and Veterans	Persons	14	15	13
		%	3.6	3.2	2.8
<b>Total number of recruited employees</b>	<b>Persons</b>	<b>77</b>	<b>71</b>	<b>58</b>	
By gender	Male	Persons	64	59	43
	Female	Persons	13	12	15
Status of retirement and turnover rate	Retiree	Persons	46	49	58
	Rate of retirement	%	12	12	14
	Voluntary retirement	Persons	12	12	18
	Rate of voluntary retirement	%	26	24	31

\* Management : Executives and PL positions

\* Voluntary retirement : Number of employees who voluntarily left the company not because of non-voluntary job change or retirement due to reasons such as disciplinary measures, dismissal, restructuring, and regular retirement

Employees Status			2017	2018	2019	
Classification	Unit					
Continuous service of employees	Average number of years of continuous service	Male	Years	12.4	9.2	9.4
		Female	Years	6.5	5.3	5.3
		Total	Years	11.2	8.5	8.6
Welfare	Welfare benefit	KRW 1 million	9,955	10,900	10,611	
	Welfare cost to revenue	%	0.16%	0.16%	0.15%	

### Status of Use of Childcare Leave and Rate of Return

Classification			2017	2018	2019	
Classification	Unit					
Use of Childcare and Rate of Return	Number of employees who used childcare leave	Male	Persons	1	0	1
		Female	Persons	7	4	8
	Number of employees returning from childcare leave who worked at least 12 months following return	Male	Persons	0	1	0
		Female	Persons	6	5	4

\* Childcare Leave is for all employees, and the rate of return is 100%.

### Education Performance

Classification			2017	2018	2019	
Classification	Unit					
Education Performance	Total education hours	Hours	1,384	2,421	2,964	
	Education hours per employee	Hours	3.6	5.9	7.2	
	Total education expense	KRW 10,000	71,686	98,344	72,149	
	Education expense per employee	KRW 10,000	185	240	176	
	Education on human rights	Training Hours	Hours	155	500	679
		Participants	Persons	388	410	411
Training hours per person		Hours/Persons	0.4	1.2	1.7	

\* Education Hours in 2019: 1,264 hours of group education (deemed as 158 persons x 8h in 2019), 679 hours of statutory education (prevention of sexual harassment, improvement of awareness of the disabled), 388 hours of anti-corruption (ethics management), 633 hours of others (information security, personal information protection)



Employee Satisfaction							
Classification		Unit	2017	2018	2019		
Employee Satisfaction	Culture Survey	Points	78.9	76.8	72.5		
	Response rate	%	88.6	81.2	84.9		
Status of Reports related to Ethics							
Classification		Unit	2017	2018	2019		
Number of Reports, Consultation on Ethical Management (by Stakeholder)	Customers	Cases	5	3	1		
	By category	Reports	Cases	0	0	0	
		Complaint	Cases	5	3	1	
	Supplier	Cases	0	2	5		
	By category	Reports	Cases	0	1	5	
		Complaint	Cases	0	1	0	
	Employees	Cases	0	0	2		
	By category	Reports	Cases	0	0	2	
		Complaint	Cases	0	0	0	
	Other Anonymous	Cases	0	4	5		
	By category	Reports	Cases	0	4	3	
		Complaint	Cases	0	0	2	
	Number of Reports on Ethics Management (by Treatments)	Investigation (Audit)	Cases	0	1	3	
		Transferred to Relevant Department	Cases	5	8	9	
Others (Unconfirmed or dismissed)		Cases	0	0	1		
Status of Disciplinary Action for Breach of Ethics Management	Sexual Harassment	Cases	0	0	0		
	Receipt of Entertainment	Cases	0	0	0		
	Breach of Code of Ethics	Cases	0	0	0		
	Breach of Regulation on SHE (Safety, Health, Environment)	Cases	0	0	0		
	Job Negligence	Cases	0	0	2		
	Total	Cases	0	0	2		
	Disclosure Status						
Classification		Unit	2017	2018	2019	2020 (Target)	
General Disclosure	IR (Investor Relations)	Number of	5	2	5	5	
	Voluntary Disclosure	Number of	-	3	2	4	
Korea Corporate Governance Service	Governance Assessment Level	Level	B+	B+	A	A+	

Supply Chain Status							
Classification		Unit	2017	2018	2019		
Suppliers Status	Number of newly registered suppliers	Number of	86	58	82		
	Number of all suppliers	Number of	239	234	283		
Cost of Purchase	Cost of goods purchased	KRW 100 million	750	557	616		
	Local supplier cost of goods purchased	KRW 100 million	57	75	79		
	Local supplier ratio of costs of goods purchased	%	7.6	13.4	12.8		
	Preferred purchasing performance from a socially responsible perspective	Purchase of green products	KRW 100 million	0.8	4.3	7.5	
		Preferred purchasing of products by SMEs	KRW 100 million	37.3	82.9	71.1	
		Technology development	KRW 100 million	0	0	0	
		Preferred purchasing of female enterprises	KRW 100 million	0	0.3	1.2	
		Preferred purchasing of disabled enterprise business	KRW 100 million	0.5	0.2	1.5	
		Preferred purchasing of social enterprises	KRW 100 million	5.8	6.2	4.5	
		Total	KRW 100 million	44.4	93.9	85.8	
		Ratio of purchasing green products	%	0.2	1.1	1.9	
		Ratio of preferred purchasing of products by SMEs	%	10.5	21.2	18.3	
		Ratio of technology development	%	0	0	0	
		Ratio of preferred purchasing of female enterprises	%	0	0.1	0.3	
		Ratio of preferred purchasing of disabled enterprise business	%	0.2	0.1	0.4	
		Ratio of Preferred purchasing of social enterprises	%	1.6	1.6	1.2	
Total		%	12.4	24.0	22.1		
Cost of Goods Purchased by Item		Cost of purchasing equipment	KRW 100 million	142	198	167	
	Cost of purchasing construction workforce	KRW 100 million	608	359	449		
	Portion of equipment purchase	%	18.9	35.6	27.2		
Portion of construction workforce purchase	%	81.1	64.4	72.8			

\* Green products: eco-friendly products with Green Certification and/or GR Mark

## SK Gas Human Rights Declaration

Personal Information Protection Indicators						
Classification		Unit	2017	2018	2019	2020 (Target)
Protection of customer personal information and loss of customer information	Breach of customer data (personal information, etc.)	Cases	0	0	0	0
	Loss of customer data (personal information, etc.)	Cases	0	0	0	0

Status of Violation of Regulations						
Classification		Unit	2017	2018	2019	2020 (Target)
Violation of regulations related to product/service information and labeling		Cases	0	0	0	0
Violation of regulations related to marketing communications		Cases	0	0	0	0

Current Status of Tax Payment						
Classification		Unit	2019			corporation tax expense(income)
			Operating Income	Operating Profit		
Tax Information	By region	Korea	KRW	3,973,394,871,104	154,007,036,113	(3,720,307,485)
		Singapore	KRW	2,582,746,908,421	40,506,249,632	(841,938,819)
		USA	KRW	744,274,812,644	(758,725,291)	43,198,103

Social Contribution Status							
Classification		Unit	2017	2018	2019	2020 (Target)	
Social Contribution Activities	Category	Social contribution costs	KRW 100 million	0.09	0.28	0.14	0.21
		Cash contributions (eco-friendly)	KRW 100 million	0.04	0.3	0.04	1.2
		Cash contributions (social welfare)	KRW 100 million	13	13	3.5	14
		Cash contributions (shared growth)	KRW 100 million	0.28	12.7	16.2	16.3
		Cash contributions (Spreading of happiness)	KRW 100 million	30	20	30	20
		Converted amount based on employee volunteering hours	KRW 100 million	0.11	0.24	0.21	0.25
Volunteering	Category	Number of activities	Number of	404	412	621	718
		Hours	Time	1,768	1,548	1,806	2,334
		Participants	Persons	251	272	337	359
		Volunteering time per employee	Time	7.0	5.7	5.4	6.5

SK Gas declares its support for the human rights principles stated in the UN Universal Declaration Human Rights, the UN Guiding Principles on Business and Human Rights, Ruggie Framework, and the International Labor Organization and pledges to fulfill its human rights responsibilities. Furthermore, SK Gas shares the policy with our stakeholders including employees, suppliers, customers and communities and contributes to improving and expanding their awareness of the policy. To implement this, SK Gas declares its human rights policy as follows.

- **Respect for Human Dignity:** SK Gas shall respect all employees and strive to create a secure working environment by prohibiting psychological or physical workplace violence.
- **Non-discrimination:** SK Gas shall not discriminate in the decision of employment or in the decision of working conditions, such as wages, promotions and training, based on gender, race, nationality, ethnicity, religion, or disability.
- **Prohibition of forced labor:** SK Gas shall not force labor against an employee's free will through mental or physical oppression. It shall not demand the transfer of IDs, passports, etc.
- **Prohibition of Child Labor:** SK Gas shall comply with the local labor laws on minimum age of employment and prohibits child labor below the age of 15. Regarding anyone less than 18 years of age, SK Gas shall not put anyone under the age of 18 to dangerous, hazardous work.
- **Compliance with working hours and working conditions:** SK Gas shall comply with the working hours prescribed by the respective national and local laws and labor-related laws, such as minimum wage, social insurance subscription, and rest and vacation provision.
- **Freedom of Association:** SK Gas shall guarantee the employee's freedom of association and collective bargaining in accordance with laws, and provides opportunities for communication between the company and employees. SK Gas shall not impose unfavorable treatment based on labor union membership, activities, or organization.
- **Safety and Environment of Workplace:** SK Gas shall comply with domestic and international environmental laws, health and safety standards, and strive to protect the environment, prevent environmental disasters and safety accidents.
- **Human Rights of Local Residents:** SK Gas shall prevent negative effects on community human rights through respect for the culture of the community. SK Gas shall contribute to improving the quality of life of local residents by supporting economic, social and cultural development.

April 28, 2020



Yoon, Byung Suk President of SK Gas



# GRI Index

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## TCFD Task Force on Climate-related Financial Disclosures

Since June 2017, the disclosure of climate-related financial information has been recommended by the TCFD (Task Force on Climate-related Financial Disclosures). As an energy company which provides impacts to climate change, SK Gas has been providing climate-related information to investors and stakeholders since 2019.

TCFD recommendation	SK Gas's Disclosure Source/Reference	Page
Governance	The board of director's oversight of climate-related risks and opportunities The committee discusses climate-related risks and opportunities as part of the key issues of corporate management and reflect on the integrated management and decision-making. The Sustainability Management Committee established in 2020 is responsible for matters relating to climate change. The committee oversees climate change-related risks and opportunities in detail at its meetings.	18
	Management's role in assessing and managing climate-related risks and opportunities SK Gas establishes company-wide environmental management strategies through the SHE Committee under the CEO. The SHE Committee, with the SVP of Technology as the chair, communicates company-wide environmental management goals and strategies related to air pollution and climate change and determines major items for discussion.	49
Strategy	Climate-related risks and opportunities the organization has identified over the short, medium, and long-term. SK Gas establishes strategies for growth, risk management, and operation of eco-friendly business sites to implement environmental management and reflects the risks and opportunities of climate change while designing and implementing strategies. · In the short-term strengthened regulations about energy consumption and waste, which cause increased expenditures are identified as potential risks, whereas new products and services by R&D and innovation, the cost reduction by energy reduction and recycles are considered as opportunities. · In the medium-term, business impact analysis is performed in accordance with changes in policies including the greenhouse gas target management system and National Energy General Plan. · In the long-term, emerging risks such as fluctuation of international LPG prices, fluctuation of profit and losses on derivatives deals for risk hedging are being managed.	19, 48
	The impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning. Risks and opportunities related to climate change continue to shape the LPG business, new business launches, and R&D. · The abolition of LPG Usage Restrictions in 2019 in accordance with government policies aiming to reduce fine dust is contributing to the increased demand for LPG vehicles and LPG fuels. This acts as a key opportunity for SK Gas's transportation fuel business. · The energy reducing trend in industrial companies is contributing to the expansion of our energy efficiency solution business	28-29, 39
	The resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario. In an effort to join in on lowering global warming down less than 2°C, SK Gas established a strategy to effectively reduce the emission of greenhouse gas. Our strategies are set up and implemented from the view point of Scope 1 and Scope 2. · Effort to reduce in-house greenhouse gas: We set a target and control the emission level according to the consented yearly target of emission. · Operation of sustainable business site: SK Gas is pushing forward with equipment improvement projects for high efficiency and low emission, such as replacing motors in the terminals. We are minimizing the environmental impact on the business sites through investments in eco-friendly equipment. We promote new businesses and support policies for the industry and customers to reduce the emission of greenhouse gas from the view point of Scope 3. · Transform into a sustainable business: We are enhancing the sustainability of our business and responding to climate change by expanding the supply of eco-friendly gas energy in the form of fuel cells, LPG/LNG combined cycle power plant, conversion of Bunker-C to LPG, and support for the development of new 1-ton LPG trucks.	50-53

TCFD recommendation	SK Gas' Disclosure Source/Reference	Page
Risk Management	The organization's processes for identifying and assessing climate-related risks SK Gas has an integrated risk management system to minimize the impact of risks in the company. According to this system, risks, even those that are regarded as less significant, are handled through prevention, detection, and response, and through quick reporting for proper management.	18-19
	The organization's processes for managing climate-related risks The SHE Group is responsible for the regular monitoring and reviewing of company-wide risks. Issues that have been identified to be important and requiring urgent attention are reported once a month to the Company-wide Integrated Risk Management Committee, in which the CEO serves as the chair. Decisions are made and passed on to the supervising department so that such issues may be actively responded to.	
	Integration of identification, assessment, and management process of climate-related risks and company-wide risk management system SK Gas's corporate risk management system classifies risks into financial risks, business risks, and operation risks. Climate-related risks are integrated and managed as operation risks, which pertain to matters related to the environment, ethics, and social issues.	
Indicators and Targets of Reduction	Indicators used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process To measure and manage climate change risks and opportunities, we use a number of indicators including greenhouse gas emissions, greenhouse gas emissions per unit, and energy consumption and savings. In particular, since 2018, the social costs due to greenhouse gas emissions are measured as a distinct indicator and disclosed to the public.	20-21
	Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions Scope 1: 26,311 tCO <sub>2</sub> eq Scope 2: 9,333 tCO <sub>2</sub> eq Scope 3 is yet to be individually handled as it is not yet applicable and is expected to be managed in the future.	
	Targets used by the organization to manage climate-related risks and opportunities and performance Our target is to achieve 5.6% reduction of greenhouse gas emissions per unit by 2025. Furthermore, for the LPG/LNG combined cycle power plant that is expected to be operational from 2024, we are planning to establish response plans that include the highest level of sustainable operations and CDM businesses compared to other gas power plants.	



# Auditor's Report

## The Shareholders and Board of Directors

### SK Gas Co., Ltd.

We have audited the consolidated financial statements of SK Gas Co., Ltd. (the "Company") and its subsidiaries (collectively, the "Group"), which comprise the statements of financial position as of December 31, 2019 and 2018, and the consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korea International Financial Reporting Standards (KIFRS).

### Basis for opinion

We conducted our audit in accordance with Korean Auditing Standards (KGAAS). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

#### Identification and measurement of lease elements for long-term Consecutive Voyage Charter (CVC)

The Group has signed long-term CVC contracts with the shippers for stable transport and supply of LPG. As long-term CVC contracts have been entered into and the freights to be paid to the vessel owner are significant, if lease components included in the charter contract are not clearly identified, there is a risk that the error will result in recurring misstatement of the consolidated financial statements for a considerable period of time.

As noted in Notes 2 and 14 to the consolidated financial statements, the Group recognized ₩457,531 million in right-of-use assets and lease liabilities, respectively, under the long-term CVC contracts as the amount for the effect of adopting the new lease standard. This accounts for the majority of 85% of the total amount recognized due to the adoption of the new lease standard, thus considered to have a significant impact on the consolidated financial statements. Accordingly, the review of the identification and measurement of leases in the long-term CVC in terms of the Group's adoption of the new lease standards was considered a key audit matter. The primary audit procedures we performed to address this key audit matter are as follows:

- Obtained an understanding and reviewed the overall conditions of the charter agreements and assessed whether the contract included lease components.
- Performed a review of whether the Group has the right to control the use as prescribed in the new lease standards for the vessels supplied to the Group.
- Performed a review as to whether the vessel owner holds the substantial right to replace the supplied vessel.
- Evaluated and obtained an understanding of the terms and conditions of the contract, freight, and settlement of the charter contract.
- Reviewed the key assumptions used for the measurement of for lease assets and liabilities.
- Performed the recalculation of the measurement of lease assets and liabilities.

#### Occurrence and cut-off of domestic LPG sales

The Group's domestic LPG sales mainly arise from LPG gas stations and petrochemical companies. Domestic LPG sales recognized during the reporting period ended December 31, 2019 account for 55% of total sales.

Therefore, the Company identifies performance obligations in the contract with respect to revenue recognition for domestic LPG transactions and recognizes them as revenue when the transaction price is allocated to each performance obligation and then each performance obligation is satisfied. Because the timing of the performance of each identified performance obligation in the contract differs, management's judgment on the timing of revenue recognition is required.

As a result, there are inherent risks related to sales cut-off due to errors in management's significant judgment, and as the amount of domestic LPG sales recognized in the consolidated financial statements is considered significant, the review of the occurrence and cut-off of sales was considered a key audit matter. The primary audit procedures we performed to address this key audit matter are as follows:

- Analysed and inspected documents of key transaction terms.
- Assessed the revenue recognition criteria for domestic LPG transactions.
- Inquired and inspected documents in regards to negative sales for domestic LPG transactions.
- Performed test of details for domestic LPG transactions during the reporting period on a sample basis.
- Performed a comparison between the timing of revenue recognition and the supporting documents of domestic LPG transactions, before and after the end of the reporting period.

#### Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with KIFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

#### Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KGAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements. As part of an audit in accordance with KGAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.

However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is Kwang Yeol Lee.



March 19, 2020

This audit report is effective as of March 19, 2020, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

# Third Party's Assurance Statement

## To the Readers of 2019 SK Gas Sustainability Report:

### Foreword

Korea Management Registrar Inc. (hereinafter "KMR") has been requested by of SK Gas to verify the contents of its 2019 Sustainability Report (hereinafter "the Report"). SK Gas is responsible for the collection and presentation of information included in the Report. KMR's responsibility is to carry out assurance engagement on specific data and information in the assurance scope stipulated below.

### Scope and standard

SK Gas describes its efforts and achievements of the corporate social responsibility activities in the Report. The verification has been conducted as limited assurance based on SRV1000 from KMR Global Sustainability Committee and International Standard on Assurance Engagements 3000 (ISAE3000) of IAASB as assurance standards. KMR's assurance team (hereinafter "the team") evaluated the adherence to Principle of reliability of the data and information on the GRI indicators as below, where professional judgment of the team was exercised as materiality criteria.

The team checked whether the Report has been prepared in accordance with the 'Core Option' of GRI Standards which covers the followings..

<ul style="list-style-type: none"> <li>· GRI Standards Reporting Principles</li> <li>· Universal Standards</li> <li>· Topic Specific Standards</li> </ul>	
<ul style="list-style-type: none"> <li>· Management approach of Topic Specific Standards</li> <li>· Economic Performance : 201-1, 201-2</li> <li>· Indirect Economic Impacts : 203-1, 203-2</li> <li>· Procurement Practices : 204-1</li> <li>· Anti-Corruption : 205-2, 205-3</li> <li>· Energy : 302-1</li> <li>· Water and Wastewater 2019 : 303-1, 303-2, 303-3</li> <li>· Emissions : 305-1, 305-2, 305-7</li> <li>· Effluents and Waste : 306-2</li> </ul>	<ul style="list-style-type: none"> <li>· Environmental Compliance : 307-1</li> <li>· Employment : 401-2, 401-3</li> <li>· Occupational Health and Safety 2019 : 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10</li> <li>· Training and Education : 404-1, 404-2</li> <li>· Diversity and Equal Opportunity : 405-1</li> <li>· Human Rights Assessment : 412-2</li> <li>· Local Communities : 413-1</li> <li>· Violation of the Law : 417-2, 417-3</li> <li>· Customer Privacy : 418-1</li> </ul>

This Report excludes data and information of joint corporate, contractor etc. which is outside of the organization, i.e. SK Gas, among report boundaries.

### Our approach

In order to verify the contents of the Report within an agreed scope of assurance in accordance with the assurance standard, the team has carried out an assurance engagement as follows:

<ul style="list-style-type: none"> <li>· Reviewed overall report</li> <li>· Reviewed materiality test process and methodology</li> <li>· Reviewed sustainability management strategies and targets</li> </ul>	<ul style="list-style-type: none"> <li>· Reviewed stakeholder engagement activities</li> <li>· Interviewed people in charge of preparing the Report</li> </ul>
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### Our conclusion

Based on the results we have obtained from material reviews and interviews, we had several discussions with SK Gas on the revision of the Report. We reviewed the Report's final version in order to confirm that our recommendations for improvement and our revisions have been reflected. When reviewing the results of the assurance, the assurance team could not find any inappropriate contents in the Report to the compliance with the principles stipulated below. Nothing has come to our attention that causes us to believe that the data included in the verification scope are not presented appropriately.

<ul style="list-style-type: none"> <li>· Materiality</li> <li>- The Report includes all important reporting boundaries under SK Gas operation and presents specific and long-term CSR strategy and targets. SK Gas is determining the materiality of issues found out through stakeholder communication channels through its own materiality evaluation process, and the assurance team could not find any critical issues nor any critical stakeholder group left out in this process.</li> <li>· Understandability</li> <li>- Being prepared in sustainability context, the Report specifies the targets on sustainability issues which are identified through the materiality evaluation process, and presents the backgrounds of selection of the critical issues and the management approach. And the Report explains the performance indicators in more detail and comparable way.</li> <li>· Reliability</li> <li>- The assurance team identified errors in some data and information, and SK Gas completed the modification before finishing the final version of the Report. We judge the data and information in the Report to be correct and reliable, and the assurance team could not find any evidence that SK Gas counter measures to critical stakeholder issues were inappropriately recorded in the Report.</li> </ul>
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We could not find any evidence the Report was not prepared in accordance with the 'Core Option' of GRI standards.

### Recommendation for improvement

We hope the Report is actively used as a communication tool with stakeholders and we recommend the following for continuous improvements.

<ul style="list-style-type: none"> <li>· Through the publication of a sustainability report, SK Gas ensured the transparent disclosure of both financial and non-financial performance and strengthened its communication with stakeholders. It recognized safety and health, ethical management and environmental management as key topics in addition to its business operations and provided a detailed, consistent report on them. The organization is advised to establish a mid- to long-term sustainability road map at the company level and reinforce quantitative performance management, improving sustainability.</li> </ul>
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### Our independence

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

June, 11th, 2020



CEO *E. J. Hwang*



# Greenhouse Gas Verification Statement



## Verification Statement of '2019 Greenhouse Gas Emission and Energy Consumption Report'

### Introduction

The Korea Foundation for Quality has been requested for the verification of the "Greenhouse Gas Emission and Energy Consumption Report" (hereinafter referred to as the "Greenhouse Gas Inventory") provided by SK Gas Co., Ltd. on information of greenhouse gas emissions from January 1, 2019 to December 31, 2019.

### Scope and Standard of Verification

The subjects of verification include all facilities that emit greenhouse gases under the operational control of the Ulsan Plant of 'SK Gas'. Direct and Indirect sources of greenhouse gas emissions (Scope 1, 2) have been calculated in accordance with the Administrative Guideline for the Greenhouse Gas Target Management System (Ministry of Environment Notice 2016-255) and 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

### Verification Procedure

Verification has been performed according to the procedures prescribed in the Administrative Guideline for the Greenhouse Gas Target Management System and to satisfy a reasonable level of assurance.

### Verification Opinion

We hereby propose the following unqualified opinion for data on greenhouse gas emissions listed under the Greenhouse Gas Inventory in accordance with the verification procedures of ISO 14064-3.

As a result of materiality assessment on the 2019 'SK Gas' Greenhouse Gas Emissions, SK Gas satisfies the requirements of the Administrative Guideline for the Greenhouse Gas Target Management System as a corporation that emits less than 500 thousand tCO<sub>2</sub>-eq of greenhouse gas, which satisfies the criteria of less than 5.0% of total emissions.

### 2019 'SK Gas' Greenhouse Gas Emissions

Type	Greenhouse Gas Emissions (tCO <sub>2</sub> -eq)		
	Direct Emissions (Scope 1)	Indirect Emissions (Scope 2)	Total (Scope 1 + Scope 2)
SK Gas	20,781	5,009	25,790
<b>Total</b>	<b>20,781</b>	<b>5,009</b>	<b>25,790</b>

May 18, 2020

*Ji Young Song*

Korean Foundation for Quality President & CEO

# Key Memberships

## Contributions for Membership Associations and Groups

Classification		Unit	2017	2018	2019	Note
Sponsoring Organizations (Top 5 organizations, participating associations, and contribution status)	Korea LPG Industry Association	KRW 1 million	140	60	56	Special member
	Korea LP Gas Sale Association	KRW 1 million	15	15	15	Special member
	H2KOREA	KRW 1 million	100	25	25	Associate member
	KBCSD	KRW 1 million	15	15	15	
	Association of Energy Future Forum	KRW 1 million	5	5	5	

## Major Donations

Organizations	Programs
Plato Academy	Support for academic research on humanities
Chey Institute for Advanced Studies	Establishment of foundation
Community Chest of Korea	Donation to support disadvantaged neighbors at the end of the year

## The 10 Principles of UNGC (United Nations Global Compact)

SK Gas supports the philosophy of UNGC and proactively engages in UNGC activities. Furthermore, SK Gas faithfully complies with each of the ten principles through the company's sustainability management activities.



Classification	SK Gas Policies and Activities		
Human rights	Principle 1	We will support and respect the protection of internationally proclaimed human rights.	We will not commit violation of human rights in business operations. Also, we will recruit employees in a fair and reasonable manner and guarantee equal opportunities by considering employees' qualifications and person-job fit. Furthermore, we will proactively collect and improve any grievance through regular communications with employees.
	Principle 2	We will not participate in abusing human rights.	
	Principle 3	We will uphold the freedom of association and acknowledge the rights of collective bargaining.	
Labor	Principle 4	We will eliminate all forms of forced and compulsory labor.	SK Gas establishes and complies with its independent environmental standard to practice environmental management. We also minimize greenhouse gas, wastewater and pollutants to conserve the natural environment and make greater effort to develop eco-friendly technology and achieve the innovation of future energy.
	Principle 5	We will abolish child labor effectively.	
	Principle 6	We will eliminate discrimination in respect of employment and occupation.	
Environmental	Principle 7	We will support precautionary approaches to environmental challenges.	SK Group has established a code of ethics for employees based on SKMS, which is the unique management system of the group, and prepared concrete practice guidelines. The company also prevents any unethical behavior by operating an ethics consultation center and utilizing an online reporting channel.
	Principle 8	We will undertake initiatives to promote greater environmental responsibility.	
	Principle 9	We will encourage the development and diffusion of environmentally friendly technologies.	
Anti-corruption	Principle 10	We will continuously make effort to uphold anti-corruption in all its forms, including extortion and bribery.	



To minimize impact on environment and use of natural resources, spot color and coating are avoided, and soybean oil is used for printing process.