Materiality Assessment

Double Materiality Assessment Process

SK Gas prepared the sustainability report based on the outcomes of its double materiality assessment. This year's double materiality assessment applied a methodology referencing the Global Reporting Initiative (GRI)'s reporting topic selection principles[1] and European Financial Reporting Advisory Group (EFRAG)'s guidance on materiality assessment[2]. Unlike previous approaches focused solely on sustainability topics, this in-depth methodology evaluates both the impacts of the company's activities on the environment and society, and the financial risks and opportunities posed by external sustainability issues to the company. To enhance the credibility of the assessment, Focus Group Interviews (FGIs) were conducted with internal stakeholders on each identified impact, risk, and opportunity. The resulting material impacts, risks, and opportunities were then integrated into the corporate strategy to strengthen the company's overall sustainability.

01 Identification of Sustainability Issues

- **Identify sustainability issues**
  - Creating a long-list of sustainability issues based on the entire EU ESRS[3] topic
  - Selecting highly relevant issues by reflecting industry specific international standards, global initiatives, ESG evaluation indicators, internal and external stakeholder survey results, benchmarking of partners and similar industries, and media research results

02 Identification of Impact, Risk and Opportunity

- **Identify the impact of company activities on the environment and society**
  - Based on statistical data related to sustainability issues, employees' interviews, benchmarking analysis, etc.
  - Classification of positive/negative and actual/potential types by impact
- **Identify of the financial impact of sustainability issues on the company**
  - Based on identification of the enterprise risk management system, interviews with employees, external disclosure standards related to sustainability issues, legal and regulatory trends, benchmarking analysis, etc.
  - Classification of risk/opportunity types by impact

03 Evaluation of Impact, Risk and Opportunity

- **Assessment of environmental and social impacts**
  - Assessment of severity (scale, scope, remedialability[2]) and likelihood[5] of occurrence
- **Assessment of risks and opportunities**
  - Evaluation of scale and likelihood of occurrence
- **FGI conducted with employees**
  - Conducted interviews with related departments to evaluate related impacts, risks/opportunities (Feb. 12, 2025 – Feb. 24, 2025)

04 Identify Key Impacts, Risks and Opportunities, and Establish Management Measures

- **Deriving important impacts, risks and opportunities based on materiality assessment**
- **Establishing management plan based on derived results**
- **Reporting final results to ESG committee**

1) GRI (Global Reporting Initiative) 3: Material Topics 2021
2) EFRAG IG 1: Materiality Assessment Implementation Guidance
3) ESRS: European Sustainability Reporting Standards
4) Assessed only in cases of negative impact
5) Assessed only in cases of potential impact

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Materiality Assessment Results

Based on the results of the materiality assessment, SK Gas identified a total of 8 material impacts that its business activities have on the environment and society, as well as 11 material risks and opportunities related to sustainability issues that may affect the company's financial status.

[Environmental/Social Impact Assessment(Actual Impact)]

Rank	Impact Scope	Sustainability Issues	Actual Impact	Positive/ Negative
1	Across the Value Chain	E Climate Change	Contribute to climate change mitigation through transition to low- and zero-carbon portfolio	+
2	Downstream	E Climate Change	GHG emissions from LPG and LNG pyrolysis during chemical product manufacturing in the value chain	−
3	Upstream	E Climate Change	GHG emissions from gas extraction, refining, and liquefaction processes in the value chain	−
4	Across the Value Chain	E Climate Change	GHG emissions from fuel combustion during maritime and land transportation of LPG and LNG	−
5	Own Operations	G Corporate Governance	Build stakeholder trust and create a virtuous economic cycle through shareholder-friendly practices	+
6	Own Operations	G Ethical Management	Ensure compliance with fair trade and anti-corruption regulations and foster a fair market culture	+
7	Own Operations	E Climate Change	GHG emissions from propane and energy use during gas storage	−
8	Own Operations	E Biodiversity	Ecosystem degradation and species decline due to new infrastructure development	−
9	Own Operations	E Waste	Air pollutant emissions from incineration of business waste	−

[Environmental/Social Impact Assessment(Potential Impact)]

Rank	Impact Scope	Sustainability Issues	Potential Impact	Positive/ Negative
1	Downstream	S Health & Safety	Downstream transport accidents weaken value chain stability and cause social loss	−
2	Own Operations	S Customer Rights	LPG-related safety incidents (fires, explosions) threaten end-user safety	−
3	Own Operations	S Health & Safety	On-site fires or explosions damage worker safety, lead to human capital loss and increased public health costs	−
4	Upstream	S Health & Safety	Upstream transport accidents disrupt operations and undermine value chain stability	−
5	Own Operations	G Ethical Management	Violations such as bribery and corruption undermine fair competition and legal order	−
6	Own Operations	E Biodiversity	Soil contamination and ecosystem disruption from oil spill accidents	−
7	Own Operations	E Air Pollution	Air pollutant emissions from leak accidents during LNG storage	−

[Financial Risk and Opportunity Assessment]

Rank	Impact Scope	Sustainability Issues	Financial Impact	Risk/ Opportunity
1	Own Operations	E Climate Change	Revenue growth driven by increased demand for low-carbon products (LNG/LPG) during the short- to mid-term transition period	Opportunity
2	Own Operations	E Climate Change	Long-term revenue and investment gains due to the expansion of the hydrogen and ammonia market	Opportunity
3	Upstream	S Customer Rights	Revenue decline and cost burden from loss of customer trust due to failure in LPG quality control	Risk
4	Own Operations	E Climate Change	Prolonged transition period due to slow national decarbonization, strengthening competitiveness of low-carbon products and improving profitability	Opportunity
5	Upstream	S Health & Safety	Productivity losses and increased costs from replacing suppliers in the event of supplier safety incidents	Risk
6	Own Operations	S Health & Safety	Legal costs under occupational health and safety laws and serious accident legislation resulting from worker health deterioration or incidents	Risk
7	Own Operations	G Corporate Governance	Increased capital inflow through stakeholder trust gained by shareholder-friendly dividend policies	Opportunity
8	Own Operations	E Climate Change	Reduced profitability due to supply disruptions caused by physical climate risks such as typhoons	Risk
9	Own Operations	E Climate Change	Decline in LPG/LNG sales due to long-term reduction in demand for carbon-emitting fuels	Risk
10	Own Operations	E Climate Change	Revenue loss due to failure to implement measures required for GHG emissions reduction	Risk
11	Own Operations	S Health & Safety	Reputational impact and revenue decline from public perception of LPG/LNG as unsafe following fire/explosion incidents at refueling stations	Risk
12	Own Operations	E Climate Change	Weakening competitiveness of zero-carbon products due to prolonged transition period from slow national decarbonization	Risk
13	Upstream	E Climate Change	Increased procurement costs from suppliers related to upstream LPG GHG reduction requirements	Risk
14	Own Operations	G Ethical Management	Fines and decreased capital inflow from failure to meet legal obligations imposed by regulatory bodies	Risk
15	Own Operations	E Climate Change	Increased operating costs such as for cooling due to rising physical climate risks	Risk
16	Own Operations	E Land Pollution	Fines incurred under the Soil Environment Conservation Act during new infrastructure development (e.g., KET, CEC terminals)	Risk
17	Own Operations	E Climate Change	Physical damage to assets and recovery costs arising from increased physical climate risks	Risk
18	Own Operations	E Air Pollution	Fines from air pollutant emissions due to leak incidents during LNG import and storage processes	Risk

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Management of Material Impacts, Risks, and Opportunities

By comprehensively considering material impacts, risks, and opportunities, the company has identified climate change and health and safety as key sustainability issues. The management strategies and performance related to these issues are detailed in the Focus Issues section of this report. Other material impacts, risks, and opportunities identified through the double materiality assessment are reported in the Customer Rights and Enhancement of Shareholder Value sections, along with their respective strategies and outcomes.

Sustainability Issues	Environmental/Social Impact		Financial Risks/Opportunities		SK Gas Response Strategy	Key Performance in 2024	Reporting Page
	Description	Classification	Description	Classification			
Climate Change	Contribute to climate change mitigation through transition to low- and zero-carbon portfolio	⊕	Revenue growth driven by increased demand for low-carbon products (LNG/LPG) during the short- to mid-term transition period	Opportunity	SK Gas is reducing GHG emissions through measures such as improving energy efficiency and installing seawater heat exchangers. Over the long term, the company aims to achieve Net Zero across the entire value chain by transitioning to clean hydrogen and ammonia businesses.	• Conducted a technical feasibility and cost analysis of existing reduction measures, identified new reduction options, and updated the 2030 Net Zero Roadmap • Reduced 3,576 tCO_2eq of GHG emissions through the installation and operation of a new seawater heat exchanger at the Clean Energy Complex (CEC) • Secured power generation rights for hydrogen fuel cell project using byproduct hydrogen through Lotte SK Eneroot	15, 26-36p
			Long-term revenue and investment gains due to the expansion of the hydrogen and ammonia market	Opportunity			
	GHG emissions from LPG and LNG pyrolysis during chemical product manufacturing in the value chain	⊖	Prolonged transition period due to slow national decarbonization, strengthening competitiveness of low-carbon products and improving profitability	Opportunity			
	GHG emissions from gas extraction, refining, and liquefaction processes in the value chain	⊖	Decline in LPG/LNG sales due to long-term reduction in demand for carbon-emitting fuels	Risk			
			Revenue loss due to failure to implement measures required for GHG emissions reduction	Risk			
	GHG emissions from fuel combustion during maritime and land transportation of LPG and LNG	⊖	Reduced profitability due to supply disruptions caused by physical climate risks such as typhoons	Risk			
Health & Safety	Downstream transport accidents weaken value chain stability and cause social loss	⊖	Productivity losses and increased costs from replacing suppliers in the event of supplier safety incidents	Risk	Based on the Occupational Health and Safety Management System (ISO 45001), SK Gas conducts facility safety assessments and risk evaluations to protect the safety of its employees and partner workers and to prevent accidents. The company also identifies risk blind spots and implements targeted improvement measures.	• Achieved Zero Class C1) accidents at business sites, customers & users • Achieved Grade A (Good) in SHE management Diagnosis • Recorded a Zero Lost-Time Injury Rate (LTIR) • Established SHE Master Plan 2.0	37-45p
	On-site fires or explosions compromise worker safety, lead to human capital loss and increased public health costs	⊖	Legal costs under occupational health and safety laws and serious accident legislation resulting from worker health deterioration or incidents	Risk			
	Upstream transport accidents disrupt operations and undermine value chain stability	⊖	Reputational impact and revenue decline from public perception of LPG/LNG as unsafe following fire/explosion incidents at filling stations	Risk			
Customer Rights	LPG-related safety incidents (fires, explosions) threaten end-user safety	⊖	Revenue decline and cost burden from loss of customer trust due to failure in LPG quality control	Risk	SK Gas strengthens quality control through the operation of QC and QM teams and manages customer site safety by implementing inspection, prevention, and grievance handling processes.	• Enhanced facility integrity for customers & users through the introduction of precision inspections and preventive maintenance • Achieved 100% grievance resolution rate for customer complaints	68-72p
Corporate Governance	-	-	Increased capital inflow through stakeholder trust gained by shareholder-friendly dividend policies	Opportunity	SK Gas has implemented a three-year dividend policy (2024–2026) and is strengthening shareholder value through consistent interim dividend payouts	• Executed both interim and year-end dividends(Interim: KRW 2,000 / Year-end: KRW 6,000 per share)	92p

1) Class C Accident: An incident resulting in more than three days of lost work or a process-related accident involving over KRW 100 million in damages.