Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Founded in 1985, Samsung SDS is an ICT company with solutions and services which have been leading the digital transformation and innovation of clients for over 30 years across a wide range of industries. With operations in more than 40 countries, Samsung SDS' solutions and services utilize advanced analytics platforms, AI, blockchain, cloud technologies to serve a diverse range of industries including financial services, smart manufacturing, global logistics, and retail. Our vision for the new era is to become a data-driven digital transformation leader by leveraging the most advanced ICT technologies and solutions to discover actionable insights. Sustainability is central to Samsung SDS to enable digital technologies to make life better for everyone, everywhere. Setting goals for sustainability, Samsung SDS focuses where we can have the greatest impact. Samsung SDS recognizes and embraces opportunities and responsibilities to address some of the greatest shared challenges facing society today, including climate change, the shift to cleaner energy, access to quality education and economic opportunity, human rights protection throughout the supply chain, and data security and privacy. Samsung SDS is also working to support UN Sustainable Development Goals and TCFD guideline. To find out more about Samsung SDS, please read Sustainability Report at https://www.samsungsds.com/en/sustainability/downloads.html

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

1 월 1, 2022

End date

12 월 31, 2022

Indicate if you are providing emissions data for past reporting years

No

C0.3

(C0.3) Select the countries/areas in which you operate.

Brazil
China
India
Republic of Korea
Singapore
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

KRW

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Financial control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	KR7018260000

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	In October, 2021, the ESG Committee was founded in line with Article 3 of the Operational Regulations of the ESG Committee. The committee has the authority to deliberate on and reaches decisions concerning the establishment of ESG strategies and policies, current ESG issues and promotional activities, and other ESG-related matters concerning which actions are deemed necessary. Specifically, the ESG committee is responsible to review and provide guidance to management and the BOD on environmental matters, including climate change, and therefore this committee is responsible for reviewing and providing guidance on the company's climate-related policies and programs. Recently the committee received a report on establishing Environmental Management TF in charge of environmental management including responsibility of handling corporate climate-related issues under CFO, the head of Corporate Management Office. The first substantial committee meeting was held in January, 2022, and the committee received reports and briefings on ESG work plans, the Environment Management TF organization and operation plan, and CSR program. Further, to support the committee members' decision making, ESG Committee Workshop was held to discuss on environment issues and Samsung SDS strategy for climate change and carbon neutral.
Chief Executive Officer (CEO)	Samsung SDS CEO carries strategic oversight of the company's sustainability which includes climate change issues as a part of the environmental management. CEO approves and oversights the company's sustainability policy and targets, and is responsible for providing resources required to implement activities to improve the company's sustainability. Along with major decisions making on developing business model or business strategy of environment-friendly solutions and services, he instructs directly on energy efficiency improvements and greenhouse gas mitigation measures and evaluates progress and task performances. CEO is responsible to reflect the above climate change related strategies into business and operational strategy.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain

Scheduled – some meetings	Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing value chain engagement	The BOD reviews the company's sustainability matters including climate-related issues, strategy, and programs. The BOD meetings are held regularly on a quarterly basis, and more often when there is a deemed needs. Reviewing and guiding sustainability strategy and goals enables the BOD to understand, oversee and advise on the role and impact of climate change and other key sustainability issues on our business. Climate-related issues are briefed to the BOD by the ESG Council and the Environment Management TF.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Cloud Service Business Division leader is in charge of climate change response including data center efficiency. Evaluation of the member depends on data center PUE improvement. Since about 90% of Samsung SDS carbon emission occurs from data center operation, it is inevitable for the Cloud Service Business Division to concern environmental impact of their cloud business. With deep understanding and expertise in industry, and as a member of the BOD, the division leader manages, oversees, and advises on related matters. A part of performance evaluation criteria of this member is on achieving data center efficiency. Because of the Cloud Service Business Division leader's competency requires deep understanding in data center operation and efficiency, improving the data center energy efficiency and achieving operational excellence by adapting related technologies are essential. Currently eco-friendly technologies such as liquid cooling and ups-less are considered to improve PUE of the data centers.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Integrating climate-related issues into the strategy
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Accountability to advance environmental performance at Samsung SDS starts at the top, with our Board, which includes our CEO, who is responsible for providing governance and oversight over the strategy, operations and management. Along with the BOD, Samsung SDS has ESG Council to manage overall ESG related issues, and Risk Management Council which receives briefings twice a month on both financial and non-financial risks including climate-related issues. This process allows us to escalate climate risks to the Board as frequently as necessary—even to every Board meeting—if climate-related risks were within the most critical set of risks for review. The CFO reports to the CEO and coordinates the Company's annual Risk Management process and actively monitors business continuity risks, including climate-related risks, as part of that process.

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing climate-related acquisitions, mergers, and divestitures
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis

Coverage of responsibilities

Reporting line

Finance - CFO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

CFO, Head of Corporate Management Office and Corporate Sustainability Management Office, is responsible for corporate-wide risk and opportunity management, and also plays a role as the CRO, Head of Risk Management Council, responsible for assessing and managing risks and opportunities. Based on the policy, procedures and checklists, the council mainly reviews the risks and opportunities of our business. The areas where expertise or advanced knowledge is required such as financial risks or climate change-related risks and opportunities, respective team controls and manages its related risks and opportunities. The Risk Management Council holds meetings every other Friday. The issues monitored and discussed by the council are briefed on a quarterly basis. Therefore, the BOD can be reported any significant climate-related risks.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Samsung SDS offers monetary incentives management in charge of climate change tasks based on the performance of their work.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Salary increase

Performance indicator(s)

Achievement of a climate-related target
Reduction in absolute emissions
Energy efficiency improvement

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The CEO has responsibility to oversee and make decisions on climate-related issues. Therefore, a part of the variable compensation depends on the performance of these business units, including their GHG reduction target. Samsung SDS transparently and accurately evaluates CEO according to the KPIs.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These performance indicators is in line with our climate-transition plan.

Entitled to incentive

Chief Financial Officer (CFO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Salary increase

Performance indicator(s)

Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Our CFO is responsible for overseeing sustainability including climate-related issues. A part of his KPI is considered by results of corporate sustainability assessment including CDP, DJSI, etc.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

As climate-related sustainability index indicates company's contribution to climate action, it is possible to figure that this incentive is in line with climate-transition plan.

Entitled to incentive

Business unit manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Salary increase

Performance indicator(s)

Reduction in absolute emissions
Energy efficiency improvement

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Person who is responsible to operate data centers receives annual salary based on the performance on climate change goals and related objectives on energy efficiency, water use, and related activities. Other activities that are linked with sustainability incentives are energy efficiency targets and GHG reduction target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These performance indicators is in line with our climate-transition plan.

Entitled to incentive

Facilities manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Salary increase

Performance indicator(s)

Reduction in absolute emissions
Energy efficiency improvement

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Facility managers carry the company's climate change goals as part of their business goals and objectives. The goals are defined in terms of energy efficiency improvements and adoption of renewable energy in the operations.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These performance indicators is in line with our climate-transition plan.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	3	2023-2025
Medium-term	4	8	2026-2030
Long-term	8	28	2031~2050

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Samsung SDS endeavors to voluntarily implement the recommendations of the TCFD along with the guidelines of CDP on climate change. Accordingly, the substantive financial and strategic impacts associated with climate change is defined as follows: the impact of low carbon transition (policy, regulation, technology, market, reputation) or physical risk of climate change on the company's existing business activities (e.g. operation of data center) and financial management (e.g. corporate cash flow, profit and loss). In terms of financial impact, we consider risks and opportunities with potential financial implications of over KRW 1.6 billion per year for our business as substantive financial impact for Samsung SDS.

Financial Impacts

1) Cost of Purchasing Carbon Credits

Samsung SDS is subject to the national GHG Emissions Trading Scheme(ETS), and has been allocated carbon credits for all domestic business sites from 2021. If the amount of emissions exceeds the quota, additional allowances must be purchased or emissions must be reduced.

As the paid allocation ratio for the Phase 3 of the ETS is set as 10%, there will be a serious shortage of carbon credits. That is, the credit cost may increase and additional costs may incur.
2) Purchase Costs for Renewable Energy
In order to meet its goal of achieving carbon neutrality by 2050, the Korean government has enacted a number of policies and regulations to lower carbon output and increase the use of renewable energies. The government is expected to phase out energy generated by fossil fuel and maximize the use of renewable energy in order to achieve 2050 national net zero target. The government policy to switch to renewable energy has a significant impact on the industry; the demand for renewable energy is expected to skyrocket causing price hikes and procurement risks.
3) Increase in Cooling Costs due to Global Warming
When operating data center infrastructure, the most energy is consumed to cool the server room. Climate change causes global warming and increases the cooling costs of data centers.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Although we do not belong to carbon-intensive industry, it is inevitable for everyone to be impacted by climate change. Samsung SDS is fully aware of the importance of corporate roles in response to climate change. Samsung SDS has established a systematic process to identify, assess, and develop response strategies for the risks and opportunities posed by climate change. This risk management process extends not only to directly operated facilities but also to the entire value chain. It is integrated into the company-wide risk management process.

Sustainability issues, including climate change risks, are among the key topics discussed in the Risk Council, with regular meetings held at least once a year. For risks

deemed significant, the Environmental, Health, and Safety (EHS) Center, a dedicated environmental management organization, along with the Corporate Sustainability Management Office a supporting organization, manage these risks. Decisions and management strategies from the EHS Center and the Corporate Sustainability Management Office are reported to the ESG Committee. Response strategies and action plans are subsequently developed and approved.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	As our Code of Conduct states that “We comply with all laws and ethical standards,” Samsung SDS adheres to laws that we are subject to. Climate-related regulation is no exception. We monitor our adherence to the current regulations through ISO14001, certified Environmental Management System. Risk related to carbon emission has not been substantive for Samsung SDS for we are a ICT services company; we are not asset-intensive nor we are not operating in a carbon-intensive industry. Therefore, we are not subject to the same level or speed of regulatory change as companies in high-emitting sectors. Samsung SDS is generally only required to report emissions and energy consumption. With compliance to the Korean Emission Trading Scheme, Samsung SDS reports greenhouse gas emissions. The government allocates carbon emission quota for each corporate. Although quota can be bought and sold, we recorded greenhouse gas emissions that were about 9% lower than the government quota through active management activities. As approximately 90% of GHG emissions is generated from our data centers, we have a team to be responsible for data center operation and management along with climate change mitigation strategy. We established a GHG inventory system to aggregate GHG emissions and energy consumption of all worksites. Samsung SDS also supports TCFD and analyzed climate change risks. GHG Emissions Trading Scheme could be a financial risk which may provoke the purchasing cost of an increase of carbon credits purchase cost, investment in GHG reduction facilities and verification. Particularly, carbon credits are expected to be insufficient despite the carry-over from the previous year due to a 10% paid allocation of carbon credit in Phase 3. The current carbon credit price based on the ‘RCP 8.5 and IEA policy standard Scenario’ is a risk.
Emerging regulation	Relevant, always included	Samsung SDS must comply with current regulations as mentioned above and emerging regulations in order to comply with our Code of Conduct, “We comply with all laws and ethical standards." We

		especially have an eye on climate-related regulation as this is an area that has become a more important issue in recent years. Samsung SDS is a global company operating 59 offices worldwide. Therefore, we monitor regulations including climate change related regulations especially in which our offices are located we do not run carbon-intensive business. Examples of emerging regulation we are monitoring are global carbon tax and carbon border adjustment mechanism which already have been implemented to some countries around the globe. Although approximately 90% of our GHG emissions are from data centers in Korea and are regulated by K-ETS, Samsung SDS closely monitors such regulations due to logistics service, one of our business domains. Samsung SDS' logistics business (4PL) is not directly involved with transportation, we do pay close attention to carbon emissions of our suppliers/partners. Further, we make various company-wide efforts to reduce carbon emissions and save energy.
Technology	Relevant, always included	Technology related risk is mainly related to our data centers where about 90% of our GHG emissions occurring. We expect data center outsourcing business to expand in the era of the 4th Industrial Revolution, and, therefore, we are preparing to improve our energy efficiency of our data centers. For instance, Samsung SDS built the Dongtan Data Center to meet the rapidly increasing demand for high-performance computing (HPC), which commenced operations in February 2023. The server rooms within the Dongtan Data Center are maintained at a standard temperature of 27℃, which is higher compared to the typical operating temperature of 22℃ in most data centers. This strategic approach enables Samsung SDS to achieve significant energy savings in cooling operations. Cooling towers are deployed to achieve approximately 70% efficiency in cooling. Furthermore, we have optimized energy consumption at the data center by employing solar power generation facilities and high-efficiency uninterruptible power supply (UPS). The Dongtan Data Center is striving to achieve optimal energy efficiency through its refined power design. Samsung SDS aims to achieve globally unparalleled power usage efficiency by incorporating cutting-edge cooling technology (liquid cooling), implementing waste heat recovery systems, and maximizing the utilization of renewable energy. In addition, with respect to renewable energy, our data centers are equipped with solar water heating systems, solar power generation, geothermal cooling/heating systems, and geothermal heat pumps. There are plans to continuously increase the production of renewable energy in the future. Samsung SDS continues to improve PUE by expanding the use of renewable energy, implementing high-efficiency power facilities, controlling the number of AHU (Air Handling Unit) using CFD(Computational Fluid Dynamics), and exploring optimal cooling

		conditions through machine learning. Samsung SDS improves energy efficiency through the construction and operation of eco-friendly data centers. Corporate reputation and value can be strengthened when satisfying stakeholders' increasing demands for low-carbon data centers.
Legal	Relevant, always included	Samsung SDS adhere to all laws and regulations as addressed the above. Therefore, understanding regulation and risks is also a major consideration to us. To date, Samsung SDS has not had climate-related litigation, nor do we believe we have financial liability for causing climate change due to the nature of our business, but we continue to re-assess the potential risks which might cause legal issues. There can be a risk for excessive GHG emissions; violating GHG Target Management or ETS. However, we believe that Samsung SDS has low potential of violating such laws for we are a professional services company not operating in a high-intensive industry. Regardless, we monitor and control our emissions closely. Another risk is related to our data center. For it is our one of business domain to provide IT services, physical damage at the data centers is potential consideration. Samsung SDS to fail to meet the terms of contracts. Due to climate change, chance of natural disasters causing physical damage to the data centers may increase in the future. Thus, the contractual terms for IT services and procurement of Samsung SDS may need to be reviewed to avoid potential legal conflict with the client or suppliers when the physical damage related to natural disasters affect the quality of the IT services of Samsung SDS.
Market	Relevant, always included	As an IT services company, understanding market expectations is critical to success and to protect shareholder values. Climate change has resulted in an increase of social demands to improve resource utilization efficiency related to carbon emissions such as consumables, raw materials, and energy. Therefore, Samsung SDS is in the process of developing safer, resilient and energy-saving data centers to satisfy those demand of the market. We have established PMS (Power Management System) to monitor IT equipment usage and data center facility usage in real time for efficient energy management to measure, evaluate, and manage energy usage for each sector, while monitoring the results of various energy efficiency improvement activities.
Reputation	Relevant, always included	Reputation risk is highly relevant to Samsung SDS as it may affect our business because we are an IT service provider that talent attraction and client trust are most considerable. Thus, hiring highly skilled individuals, being innovative, being able to deliver services and solutions, and being a good corporate citizen all matter to us. Therefore, climate-related risks is also important and relevant. Samsung SDS considers that there is correlation between climate

		change management and corporate reputation. Although Samsung SDS is not considered a high-risk industry, we do continue to expand our efforts to be a leading ICT service provider. We are an IT services company, are not asset-intensive, and therefore are not subject to any substantive regulations. However, we continue to innovate to improve how we manage carbon and energy internally, and also helping companies solve their sustainability and climate-related risk problems. As of the social demands for companies to be environment-friendly, Samsung SDS continues to evolve to meet our shareholders' expectations.
Acute physical	Relevant, always included	Acute physical risks exist primarily because we are an IT service provider which have data centers. This type of operational risks are beyond our control. While not the only driver of disruption, extreme weather events have the potential to disrupt operations by impacting our people and our locations. For example, our facilities (e.g., data center) might be affected by extreme weather event which may impair our ability to maintain service to clients. Such interruption may cause system error, power outage, and more. For in case of such natural disaster (e.g., flooding, typhoons, severe droughts, etc.) we have established emergency and disaster preparedness and response guide and system, and designed measures to protect major facilities such as data centers to minimize risks of such events and to ensure the safety of our people. For example, the most likely risk of fluvial flooding, response scenarios are being established, taking into account the elevation of the ground where the assets are located and the highest water levels during past floods. Countermeasures are being implemented for facilities with a relatively high potential for flooding, such as parking lots and entrances. These measures include the installation and placement of flood barriers, protective shutters, and water pumping stations to prepare for such events.
Chronic physical	Relevant, always included	Risks caused by climate change is inevitable to all. Samsung SDS, too, recognizes the issue, and considers ways how to respond. We recognize that conditions change over time and therefore monitor climate change trend (especially global warming) or energy and water scarcity, but these have not substantively impacted us to date. Global warming caused by climate change may affect the operational cost of our data centers. Cooling a server room consumes the most energy to operate a data center. Result of our internal analysis shows a correlation between global warming and data center operation cost; energy cost rises by 1.1% when 1°C increases. That is, cooling cost increases significantly as global warming continues to rise the overall global temperature. If the average temperature rises by 2°C, the energy cost could increase by about 500 million won per year, and if the

		average temperature rises by 4°C, the cost will increase by about 800 million won.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Samsung SDS is subject to the allocation of GHG emission allowances under the Emission Trading Scheme of Korea. Annually Samsung SDS should submit emission allowances to the Korean government in accordance with the actual GHG emissions verified each year. Therefore, it is necessary to reduce GHG emissions which accelerate the investment in GHG reduction and energy saving activities in order to reduce the compliance cost of purchasing emission allowances from the carbon market in Korea. In case of failure to fulfilling the required amount of carbon credit, there is a fine posed by the government corresponding to three times the average price of the carbon credit in the current carbon market in accordance with the "Enforcement Decree of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits."

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

109,714,500,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The implementation of the Emission Trading Scheme has the financial risk of the purchase cost of allowance or the imposition of fines. Our last year's domestic GHG emissions was 118,107 tons and free allowance is 105,844toms. This shows about 90% of GHG emissions are allocated as allowance for free normally. In other words, we have to pay for 10% of GHG emissions yearly. By 2025, our GHG emissions will be increased up to 210,000tons. Calculation of potential financial impact is : 210,000*10% = 21,000tons* 17,415KRW (weighted average price of KAU)* 3 years = 1,097,145,000KRW

Cost of response to risk

540,000,000

Description of response and explanation of cost calculation

Installation of solar power generation facilities : 344 million KRW, Installation of inverters : 200 million KRW.

Comment

Samsung SDS responds to the Emission Trading Scheme by actively implementing greenhouse gas emission reduction activities centered on products and business sites. In 2022, Samsung SDS reduced GHG emissions by 855 tCO2eq through free cooling system, solar water heating, and use of renewable energy (solar power and geothermal energy).

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact

Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

Company-specific description

Physical impacts of climate risk in Korea take the form of increased frequency and severity of flooding. This could lead to blackout or other forms of problems regarding energy supply, temporary closure of data centers, partial destroy of electronic data and/or delay of delivering timely IT services to the client. For example, frequency of replacing data center air filtration can be increased due to yellow dust and micro-dust caused by global warming and use of fossil fuel. At the same time, such dust may decrease power generation of solar power may decrease due to lack of sunlight, which in turn results in the increased consumption of grid electricity which leads more electricity cost as well as carbon cost for more GHG emissions.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

89,300,000

Potential financial impact figure – maximum (currency)

399,700,000

Explanation of financial impact figure

Samsung SDS employed S&P Global's Climanomics service to perform a physical risk analysis. We projected average annualized asset value losses and decade-spanning losses for seven climate hazards, including fluvial flooding, abnormally high temperatures, drought, wildfires, coastal flooding, tropical cyclones, water shortages under the RCP scenarios(RCP 2.6, 4.5, 6.0, and 8.5) of the IPCC Fifth Assessment Report. In RCP 2.6 scenario, asset loss caused by fluvial flooding is estimated $89.3m, and in RCP 8.5 scenario, asset loss caused by fluvial flooding is estimated $399.7m from 2020 to 2050.

Cost of response to risk

33,300,000

Description of response and explanation of cost calculation

Application of new technologies to reduce power consumption in Eco-Cloud Data Centers(introduction of Liquid Cooling, operation of UPS Eco-Model). Cost is estimated about $33.3m to implement new technologies.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changing temperature (air, freshwater, marine water)

Primary potential financial impact

Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

Company-specific description

As Samsung SDS owns and run data centers, temperature extremes cause huge impact on company's financial status and asset value. (e.g. Increase of cooling cost, HVAC degradation, and decline of employee productivity)

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

58,800,000

Potential financial impact figure – maximum (currency)

70,200,000

Explanation of financial impact figure

Samsung SDS employed S&P Global's Climanomics service to perform a physical risk analysis. We projected average annualized asset value losses and decade-spanning losses for seven climate hazards, including fluvial flooding, abnormally high temperatures, drought, wildfires, coastal flooding, tropical cyclones, water shortages under the RCP scenarios(RCP 2.6, 4.5, 6.0, and 8.5) of the IPCC Fifth Assessment Report. In RCP 2.6 scenario, asset loss caused by temperature extremes is estimated $58.8m, and in RCP 8.5 scenario, asset loss caused by temperature extremes is estimated $70.2m from 2020 to 2050.

Cost of response to risk

33,300,000

Description of response and explanation of cost calculation

Application of new technologies to reduce power consumption in Eco-Cloud Data Centers(introduction of Liquid Cooling, operation of UPS Eco-Model). Cost is estimated about $33.3m to implement new technologies.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

To assess the financial implications of transition risks on Samsung SDS, we conducted a scenario analysis in collaboration with S&P Global, focusing on carbon price risk. By evaluating three carbon price scenarios (high/moderate/low) and two emissions scenarios (BAU and Net-Zero), Samsung SDS calculated the total carbon cost associated with each scenario and determined the proportion of these costs relative to our total operating expenses (OPEX).

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

66,420,000

Potential financial impact figure – maximum (currency)

380,590,000

Explanation of financial impact figure

Internal carbon price risk is estimated from $1/ton in 2022 to $32/ton in 2050 with low carbon risk scenario (which is based on IRENA), and $14/ton in 2022 to $151/ton in 2050 with high carbon risk scenarion(which is based on IEA NPS). Considering internal carbon price risk and projected GHG emissions from 2022 to 2050, total carbon risk cost would be $66.42m in low carbon risk scenario and $380.59m in high carbon risk scenario.

Cost of response to risk

411,300,000

Description of response and explanation of cost calculation

Conversion from fossil fuels to renewable energy is proper resolution for carbon price risk since cost for generating renewable energy has been decreased due to development of technologies and policies. Cost for purchasing renewable energy(REC, PPA, etc.) can be estimated as 80KRW/kWh at this moment and we forecast this cost will be decreased 1% annaully. As about 8,600GWh of energy should be converted to renewable one for achieving carbon neutrality, total cost of response to risk will be about $411.3m.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Samsung SDS regards climate change as one of the important drivers underlying the social demand for advanced and eco-friendly data center. In this regard, Samsung SDS has decided to expand the construction and operation of eco-friendly data centers with improved energy efficiency and better security, safety and resiliency. Samsung SDS is operating 17 data centers worldwide and these data centers are being improved based on growing social demand for eco-friendly data centers with low-carbon energy, high level of energy independency, and resiliency to extreme weather events among other advanced features. By doing this, we expect that corporate reputation, market power, and corporate value of Samsung SDS will be strengthened as well as satisfying stakeholders' increasing demands for low-carbon data centers.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

201,038,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Samsung SDS is applying climate technology to existing data operations and new data centers. Samsung SDS closely analyzes utilities such as air conditioning, electricity, firefighting, and security on data centers, considering the impacts of abnormal temperatures or disasters caused by climate change. Additionally, we strengthen the integrated monitoring system over infrastructure, security facilities and data center management and conduct activities in response to climate change risks when selecting new data center locations. Samsung SDS assesses the impact of largely two categories of data center improvements, namely measures for 1) GHG mitigation and 2) adaptation. In our internal research, each category of mitigation and adaption improvement may account for 5% increase of the revenue of Samsung SDS related to ITO and cloud services. Therefore, as the revenue for cloud and ITO is 4,020,772 million KRW, potential increase of revenue thanks to these improvements for data centers may be up to roughly 201,038 million KRW.

Cost to realize opportunity

42,200,000,000

Strategy to realize opportunity and explanation of cost calculation

Major activities of improving data center related to climate change include advancement of PUE (Power Usage Effectiveness) indicators by expanding the use of renewable energy, implementing high-efficiency and security measures for power facilities,and exploring optimal cooling conditions through machine learning. Especially, Samsung SDS is planning to implement a new technology, liquid cooling, which can reduce carbon emissions from datacenter. It is estimated to cost about 42,200 million KRW to develop and implement these technologies.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

The demand for integrated ESG management and reporting solution for companies are expected to increase as Korean government has recently introduced a plan to adopt

legal requirement for companies to manage their ESG performances in alignment with a variety of the ESG standards and frameworks. Based on the years of experience and knowledge of Samsung SDS, the company sees this as a business opportunity and reviewing the development of one centralized tool where client companies can manage, track and report ESG data and strategies. As more companies are recognizing the need for reliable systems to effectively manage and report the ESG data, Samsung SDS can provide a broad solution complete with the latest industry frameworks and standards to assist clients through the ESG reporting process, help manage sustainability risk and provide relevant insights to internal and external stakeholders.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

169,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Last year, over 100 companies disclosed their ESG related data through corporate sustainability reports, and the number is expected to be increased as Korean Government announced that all listed companies in Korea are required to open their ESG data by 2025. That is, it is soon to be a legal requirement to disclose corporate ESG data including their targets, performances, activities related to ESG indicators. Accroding to research by opimas, size of ESG data market might exceed 13 billion USD in 2022. In this context, our annual revenue is expected to be increased up to 169,000 million KRW, if we occupy 10% of the global ESG data market with our ESG platform.

Cost to realize opportunity

580,000,000

Strategy to realize opportunity and explanation of cost calculation

We strategically aim to develop an ESG platform including the following features:
1) With the platform, corporate may better understand and manage their ESG goals/performances in accordance with the ESG indicators such as KCGS (Korea Corporate Governance Service), K-ESG (Korea ESG Standards), Sustainability

Accounting Standards Board (SASB), Task Force on Climate-Related Financial Disclosures (TCFD) and United Nations Sustainable Development Goals (UN SDGs) and others. Further, the platform will allow defining and tracking client-specific corporate goals and KPIs.
2) The platform will allow manage ESG risks including climate-related issues by providing industry-specific analysis to assess, manage and report the risks.
3) Samsung SDS ESG platform is to identify themes, understand relationships and inter-dependencies, and track ESG progress and status. The cost for developing these solutions will roughly be 414 million KRW per year in development phase and 166 million KRW per year in operation and improvement phase.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

Samsung SDS collects feedback from shareholders, investors, and stakeholders by publishing and sharing a sustainability report, IR meeting(quarterly IR conference call, Non-Deal Roadshow), etc.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your climate transition plan (optional)

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IRENA	Company-wide		Parameters : Carbon price data, GHG emissions projection, Financial data(revenue, operating expenditure, revenue/expense CAGR, discount rate) Assumptions 1) The analysis presents findings up till year 2050 2) The ratio between scope 1 and scope 2 in the base year is assumed to remain the same over time. 3) The projected costs of carbon offsets are excluded from the analysis. Analytical Choices 1) Carbon price data : A database of current carbon taxes, emissions trading schemes and fuel taxes in over 100 geographies. 2) Carbon price scenarios : Potential future carbon price trajectories informed by published research and climate change modeling. 3) Revenue, expenditures and emission projections : Projections of revenue, operating expenditure and GHG emissions for future years based on assumptions concerning future growth. 4) Pass through modeling : Modeling of the pass-through of rising carbon prices to a company from suppliers. 5) Analysis tool : Analysis designed to draw insights on the impact of rising prices on company financial performance.
Transition scenarios IEA STEPS	Company-wide		Parameters : Carbon price data, GHG emissions projection, Financial data(revenue, operating expenditure, revenue/expense CAGR, discount rate)

(previously IEA NPS)			Assumptions 1) The analysis presents findings up till year 2050 2) The ratio between scope 1 and scope 2 in the base year is assumed to remain the same over time. 3) The projected costs of carbon offsets are excluded from the analysis. Analytical Choices 1) Carbon price data : A database of current carbon taxes, emissions trading schemes and fuel taxes in over 100 geographies. 2) Carbon price scenarios : Potential future carbon price trajectories informed by published research and climate change modeling. 3) Revenue, expenditures and emission projections : Projections of revenue, operating expenditure and GHG emissions for future years based on assumptions concerning future growth. 4) Pass through modeling : Modeling of the pass-through of rising carbon prices to a company from suppliers. 5) Analysis tool : Analysis designed to draw insights on the impact of rising prices on company financial performance.
Physical climate scenarios RCP 2.6	Company-wide		Parameters : Asset information(type, ownership, location, value), Physical hazard(temparature extremes, flooding, drought, wildfire, etc.), Impact on assets(cleanup cost, business interruption, foundation damage, etc.) Assumptions RCP 2.6 scenario assumes that emissions peak early and then fall due to the active removal of greenhouse gases from the atmosphere. It is estimated that end-of-century increases in global mean surface temperature will be in the range of 0.9 to 2.3°C. Analytical Choices 1) Physical hazard modeling : This modeling reflects the climate-related change in the level of hazard exposure of an asset over time, relative to a historical baseline. Each hazard is associated with a specific metric, which defines how the hazard is measured and expressed. The data for all of the hazard metrics come

			from a variety of climate models and other data sources. 2) Modeled Average Annual Loss : Physical risks are expressed as modeled average annual loss(MAAL) which means the sum of expected financial losses (related to operating expenses, capital expenditures, and revenue impacts) resulting from climate change for the designated period.
Physical climate scenarios RCP 4.5	Company-wide		Parameters : Asset information(type, ownership, location, value), Physical hazard(temparature extremes, flooding, drought, wildfire, etc.), Impact on assets(cleanup cost, business interruption, foundation damage, etc.) Assumptions RCP 4.5 scenario assumes coordinated action to limit greenhouse gas emissions to achieve a global temperature warming limit of approximately 2 degrees Celsius. Analytical Choices 1) Physical hazard modeling : This modeling reflects the climate-related change in the level of hazard exposure of an asset over time, relative to a historical baseline. Each hazard is associated with a specific metric, which defines how the hazard is measured and expressed. The data for all of the hazard metrics come from a variety of climate models and other data sources. 2) Modeled Average Annual Loss : Physical risks are expressed as modeled average annual loss(MAAL) which means the sum of expected financial losses (related to operating expenses, capital expenditures, and revenue impacts) resulting from climate change for the designated period.
Physical climate scenarios RCP 6.0	Company-wide		Parameters : Asset information(type, ownership, location, value), Physical hazard(temparature extremes, flooding, drought, wildfire, etc.), Impact on assets(cleanup cost, business interruption, foundation damage, etc.) Assumptions RCP 6.0 scenario assumes a high greenhouse gas

			emission rate with radiative forcing stabilization after 2100. It is estimated that end-of-century increases in global mean surface temperature will be in the range of 2.0 to 3.7°C. Analytical Choices 1) Physical hazard modeling : This modeling reflects the climate-related change in the level of hazard exposure of an asset over time, relative to a historical baseline. Each hazard is associated with a specific metric, which defines how the hazard is measured and expressed. The data for all of the hazard metrics come from a variety of climate models and other data sources. 2) Modeled Average Annual Loss : Physical risks are expressed as modeled average annual loss(MAAL) which means the sum of expected financial losses (related to operating expenses, capital expenditures, and revenue impacts) resulting from climate change for the designated period.
Physical climate scenarios RCP 8.5	Company-wide		Parameters : Asset information(type, ownership, location, value), Physical hazard(temparature extremes, flooding, drought, wildfire, etc.), Impact on assets(cleanup cost, business interruption, foundation damage, etc.) Assumptions RCP 8.5 scenario assumes that no major global effort to limit greenhouse gas emissions will go into effect. RCP 8.5 is characterized by increasing greenhouse gas emissions over time representative for scenarios in the literature that lead to high greenhouse gas concentration levels. It is estimated that end-of-century increases in global mean surface temperature will be in the range of 3.2 to 5.4°C. Analytical Choices 1) Physical hazard modeling : This modeling reflects the climate-related change in the level of hazard exposure of an asset over time, relative to a historical baseline. Each hazard is associated with a specific metric, which defines how the hazard is measured and expressed. The data for all of the hazard metrics come from a variety of climate models and other data

			sources. 2) Modeled Average Annual Loss : Physical risks are expressed as modeled average annual loss(MAAL) which means the sum of expected financial losses (related to operating expenses, capital expenditures, and revenue impacts) resulting from climate change for the designated period.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

1) How high the carbon price in the future considering emerging regulations such as carbon tax, and how much of an impact it has on company's financial status?
2) What kinds of physical risk can influence to company in the future and how much of an impact it has on company's asset value?

Results of the climate-related scenario analysis with respect to the focal questions

1) Samsung SDS computed the internal carbon price by considering the anticipated increase in carbon prices by country under the carbon price scenario and the global business sites where Samsung SDS operates. The analysis showed that it would increase from $14 in 2022 to $151 in 2050 under the high carbon price scenario. Based on the BAU emissions projection and high carbon price scenario, the total cost of carbon price risk ascends from $7.9 million in 2025 to $15.8 million in 2050 under the High mitigation scenario. These costs represent a share of operating expenses(OPEX) amounting to 0.06% in 2025 and 0.16% in 2050. To minimize the cost of carbon price risk, Samsung SDS is strategically dedicated to continuous research to improve energy efficiency, which includes replacing outdated equipment and expanding the use of high-efficiency equipment. Additionally, we are establishing technical standards for the implementation of Liquid Cooling technology.

2) Under the RCP 8.5 scenario, which presents the highest climate change risk, Samsung SDS' asset loss rate is projected to be 22.9% in 2030 and 40.3% in 2050. Conversely, in the RCP 2.6 scenario, which has the lowest risk, the asset loss rate was comparatively low at 8.9% in 2030 and 18.2% in 2050. Among the seven climate hazards(fluvial flooding, abnormally high temperatures, drought, wildfires, coastal flooding, tropical cyclones, water shortages), the greatest impact on asset loss is expected to be caused by fluvial flooding, with some degree of impact also expected from extreme temperature and drought. However, the risks of wildfires, coastal

inundation, cyclones, and water stress are considered to have minimal potential for loss. The assets with high loss rates are the Sangam Data Center and Suwon Data Center, which are located near rivers and require high recovery costs due to the nature of data centers. Samsung SDS plans to mitigate such risks by continuously enhancing cooling efficiency, which involves expanding cooling facilities in data centers, upgrading outdated facilities, and applying liquid cooling technology before 2035.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Factors including increased understanding and awareness about climate change and its causes and effects, as well as policy, reputation and financial factors are driving increased client demand for our low-carbon products and services. Based on the risk and opportunity analysis, we figured out climate change adds the value of eco-friendly data center and logistics services. In other words, climate-related risks and opportunities can influence on revenue and operating profit. For that reason, we set our corporate strategy for 2030 about building safe and environmentally-friendly data center and improving safety, resiliency, and energy and information security of existing data center. In terms of logistic services, we are planning to provide carbon emmision information with our logistics solution, 'Cello', and develop low-carbon transportation products, thereby directly contributing to carbon emission reduction.
Supply chain and/or value chain	Yes	As our stakeholder's interest in climate change grows, we recognize the need to reduce GHG emissions in our value chain of suppliers as well as our own operation. For many of our suppliers, climate-related risks and opportunities are mainly related to the GHG emissions of vehicles for logistics. As global movement to low-carbon and green logistics are being witnessed, demand of our suppliers is growing for managing their fuel consumption and usage of low-carbon vehicles. Samsung SDS is planning to develop an initiative within the next 3 years to accelerate suppliers of value chain to enhance their capability in the area of low-carbon logistics.

Investment in R&D	Yes	Samsung SDS continuously conducts researches on climate change in order to enhance the competitiveness of our business. The studies are mainly related to IT solutions related to energy use efficiency, such as corporate ESG monitoring solutions, smart building solutions, and intelligent factory solutions. From 2020 to the years to come, Samsung SDS has decided to do intensive R&D activities for climate-change related areas. There is a close link between climate change and risks and opportunities of some IT solutions related to energy management and digital transformation of the companies.
Operations	Yes	Physical risks with implications for our operations include increased frequency and severity of storms with related flooding. IT services is exposed to the risk of natural disasters caused by abnormal weather conditions. Samsung SDS identified important physical risks such as power outages caused by natural disasters, and manages risks by focusing on risk hedges. One example is the uninterruptible power supply (UPS) which is being used as the emergency power generator to minimize the damage in a blackout situation. Samsung SDS also installed solar panel for electricity generation to enhance our capability in terms of energy independence and low carbon energy. For the time period from the year of 2022 to 2030, Samsung SDS will increase our renewable energy output to manage these risks in short- to medium term.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Assets	1) Revenues As offering cloud service and logistics service, reduction of GHG emissions and achieve carbon neutrality is directly linked to our revenue since customers who want to purchase IT services with carbon-free are getting increased. Emergence of low-carbon alternatives for IT/logistics services can decrease revenue. Therefore, we established a strategy for sustainable business which is linked to climate related risks and opportunities to create a new revenue and prevent the loss of revenue.

		2) Direct/Indirect costs To mitigate an impact of climated-related risks, company should spend a cost for purchasing GHG emissions allowance and renewable energy such as renewable energy certificate(REC) and green carbon premium that increases direct cost. On the other hand, climate-related opportunities can decrease indirect costs by enhancing datacenter energy efficiency and utilization of policy incentives for renewable energy, etc. 3) Assets Physical risks might have a negative impact on value of assets company owned. We consider this negative influence when we estimate future asset value and financial planning associated with it,

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
Row 1	Yes, we identify alignment with our climate transition plan

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

OPEX

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

39,750,000,000

Percentage share of selected financial metric aligned in the reporting year (%)

0.24

Percentage share of selected financial metric planned to align in 2025 (%)

0.06

Percentage share of selected financial metric planned to align in 2030 (%)

0.1

Describe the methodology used to identify spending/revenue that is aligned

In the reporting year, Samsung SDS Spent 39.7 billion KRW for installation of energy-saving facilities at data centers such as chilled water pump inverters, variable air volume fan, etc. As total operating expense in reporting year is 16,319 billion KRW, percentage share of OPEX is 0.24%. For the future, according to our analysis co-worked with S&P Global, total carbon pricing risk is estimated as 7.88 million USD(0.06% of OPEX)in 2025 and 13.67 million USD(0.10% of OPEX) in 2030. In this analysis, OPEX CAGR is assumed as 6.07% from 2022 to 2025, 3.07% from 2026 to 2030 and discount rate 3.32% is applied.

Financial Metric

Revenue/Turnover

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

1,271,000,000,000

Percentage share of selected financial metric aligned in the reporting year (%)

7.37

Percentage share of selected financial metric planned to align in 2025 (%)

8.5

Percentage share of selected financial metric planned to align in 2030 (%)

10

Describe the methodology used to identify spending/revenue that is aligned

In the reporting year, Samsung SDS earned 1,271 billion KRW from eco-friendly business such as cloud service, Nexplant FMS(facility management system), and video conferencing. As total revenue in reporting year is 17,235 billion KRW, percentage

share of revenue is 7.37%. In the future, according to our internal estimation, percentage share of revenue aligns with our climate transition plan would be 8.5% in 2025, and 10.0% in 2030. In this analysis, In this analysis, revenue CAGR is assumed as 6.07% from 2022 to 2025, 3.07% from 2026 to 2030 and discount rate 3.32% is applied.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	2023 : 162,215 2024 : 199,633 2025 : 210,584 2026 : 212,675 2027 : 214,054	We are working on developing our climate-transition plan and annual emissions target. At this moment, there are various factors to consider such as short-term/long-term financial impact and supply of renewable energy in domestic market which is why it takes quite a long time to set a detailed emission goal.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	2	342
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy generation
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

39

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

11,000,000

Investment required (unit currency – as specified in C0.4)

346,500,000

Payback period

>25 years

Estimated lifetime of the initiative

21-30 years

Comment

Solar panels are installed on the roof of the rooftop of Suwon DC outdoor distribution room

Initiative category & Initiative type

Energy efficiency in buildings
Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)

303

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

82,000,000

Investment required (unit currency – as specified in C0.4)

200,000,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Reduce power use by installing inverters in Suwon DC cold water and cooling water pumps

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	ETS compliance Samsung SDS plans new GHG reduction project every year to respond to the target management system and continues to manage the existing GHG reduction project to reduce the cost of complying the requirement of K-ETS
Employee engagement	KPI of energy management group staffs As active participation of employees is essential in reducing of energy consumed in lighting, heating, and cooling, and promoting

	the use of energy saving devices, we encourage employees to voluntarily participate.
Internal incentives/recognition programs	Samsung SDS provides incentives to employees finding or suggesting energy saving items.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Information and communications

Description of product(s) or service(s)

Our data centers are implemented with a comprehensive set of energy efficiency practices. Samsung SDS newly acquired Green Data Center Certification in 2022 satisfying the K-Taxonomy classification, Low-carbon Internet Data Ceneter Operation.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify

Using indirect calculation method by measuring cooling system efficiency such as pPUE , CUE, WUE etc.

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-grave

Functional unit used

individual data center

Reference product/service or baseline scenario used

global and local data centers

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-grave

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

We calculate avoided emmisions by each technology adopted
1)Expansion of direct outdoor air introduction period
2)Shading device/water spray for outdoor chillers
3)Outdoor refrigerator condenser coil spraying

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Samsung SDS provides advanced logistics services on Cello, our integrated logistics platform. Our Cello solution allows our clients to optimize the routes and therefore minimize the carbon emissions during logistics process.

Type of product(s) or service(s)

Other

Other, please specify

Efficient logistics services using Cello platform by route optimization, loading optimization

Description of product(s) or service(s)

End-to-end logistics service covering international/inland shipping, warehouse management, and 4PL services including consulting and IT services. Cello covers all areas of logistics, including international transport, customs clearance, inland transport, warehousing, last-mile delivery (LMD), reverse logistics, etc. It also helps manage master data, contracts, invoicing, and others that are commonly required in logistics. On Cello, you can track the status of your shipments in real time while also having access to every function you need for global logistics, such as operation progress and indicators.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Manufacturing Environment Monitoring: Nexplant

Type of product(s) or service(s)

Systems integration

Other, please specify

IT-based monitoring and management of air/water pollutants

Description of product(s) or service(s)

Samsung SDS is working to develop an advanced Intelligent Factory business. To this end, we realize intelligence in all
areas of manufacturing based on the Nexplant platform, which integrates new information technologies such as big data, AI, IoT, blockchain, and cloud. Nexplant

provides an automatic control system for safe and smart operation by monitoring and controlling the facilities used in factories (electricity, air conditioning, water, wastewater, etc.) and enables real-time IT-based monitoring and management of air/water pollutants with its own state-of-the-art remote monitoring system. 20 workplaces of 7 companies use Samsung SDS' Nexplant platform to detect anomalies in real-time and predict failure to increase the facility operation rate, while improving quality by optimal control and analysis.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	From 2022, our subsidiaries and overseas workplaces were also included in the emission calculation range. - Subsidiaries : Miracom, Secu i, Multicampus - Overseas site : SDSA, SDSE, SDSI, SDSV, SDSAP, SDSC

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 2, market-based Scope 3	Our baseline emissions change when there is a change in boundaries and calculation methodology.	No

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

4,539

Comment

Until 2021, it was based on emissions from domestic workplaces, but from 2022, the base year was set to 2022, including subsidiaries and overseas workplaces.

Scope 2 (location-based)

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

118,278

Comment

Until 2021, it was based on emissions from domestic workplaces, but from 2022, the base year was set to 2022, including subsidiaries and overseas workplaces.

Scope 2 (market-based)

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

118,278

Comment

We have same figure in location-based scope2 and market-based scope2.

Scope 3 category 1: Purchased goods and services

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

22,647

Comment

Scope 3 category 2: Capital goods

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

84,216

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

7,718

Comment

Calculated for the first time in 2022

Scope 3 category 4: Upstream transportation and distribution

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

2,996,426

Comment

Scope 3 category 5: Waste generated in operations

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

290

Comment

Scope 3 category 6: Business travel

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

8,646

Comment

Scope 3 category 7: Employee commuting

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

5,222

Comment

Scope 3 category 8: Upstream leased assets

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

14,773

Comment

Calculated for the first time in 2022

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

1 월 1, 2022

Base year end

12 월 31, 2022

Base year emissions (metric tons CO2e)

14,581

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
Korea GHG and Energy Target Management System Operating Guidelines
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

4,539

Comment

From 2022, our subsidiaries and overseas workplaces were also included in the emission calculation range.
- Subsidiaries : Miracom, Secu i, Multicampus
- Overseas site : SDSA, SDSE, SDSI, SDSV, SDSAP, SDSC

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

118,278

Comment

From 2022, our subsidiaries and overseas workplaces were also included in the emission calculation range.
- Subsidiaries : Miracom, Secu i, Multicampus
- Overseas site : SDSA, SDSE, SDSI, SDSV, SDSAP, SDSC

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Cold water

Scope(s) or Scope 3 category(ies)

Scope 2 (market-based)

Relevance of Scope 1 emissions from this source

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

5

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Government guidelines do not include cold water

Explain how you estimated the percentage of emissions this excluded source represents

Convert to energy consumption (J) to find the ratio

C6.5

(C6.5) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

22,647

Emissions calculation methodology

Average spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.7

Please explain

It is calculated based on purchased assets (sales assets) that are not acquired as assets at the head office.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

84,216

Emissions calculation methodology

Average spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

2.7

Please explain

Excluding those included in category 1 (sales assets) among all assets acquired at the head office (excluding assets under construction)

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

7,718

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.2

Please explain

Calculation based on fuel and energy consumption equivalent to Scope 1 and 2 of workplaces subject to the '22 Greenhouse Gas Specification

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,996,426

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

95

Please explain

Samsung SDS provides customers' products to customers' requests with 3PL logistics, so it calculates them as shipping logistics (Inbound/outboard)
- '22 FIS / TMS transport volume (excluding customs clearance, etc.)
- Logistics warehouses of domestic and foreign electronics, foreign, and related companies that Samsung SDS entered in '22

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

290

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.01

Please explain

Waste generated by 9 workplaces operated by Samsung SDS in '22
※ Excluding food waste (It is reasonable for the consignment operator to manage the waste because the consignment operator manages the purchase, cooking, and disposal of food ingredients)

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

8,646

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.3

Please explain

It is calculated by the details of domestic business trips, overseas business trips, and transportation expenses registered in the SDS in-house system.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

5,222

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.2

Please explain

Calculated using statistical data on average commuting hours by region provided by the state based on the number of workers by workplace in '22

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

14,773

Emissions calculation methodology

Supplier-specific method
Fuel-based method
Site-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.5

Please explain

Emissions are calculated based on the amount of power used by overseas data centers that are not included in Scope 1 and 2 and are leased and used in buildings.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDS is a service company that does not manage the logistics of Zeform sold by the company, and the logistics for 3PL (if the company pays for transportation and orders transportation) is calculated as upstream transportation logistics (Cat.4) and does not correspond to downstream transportation logistics

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDS does not produce products, so it is not applicable.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDS does not produce products, so it is not applicable.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDS does not produce products, so it is not applicable.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

It does not apply because there is no service that Samsung SDS is doing according to the re-lease.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDS does not apply because it does not have a franchise business

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

14,581

Emissions calculation methodology

Average spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0.5

Please explain

Emissions are calculated based on the sales and equity ratio of investment companies as of the end of '22 (excluding companies subject to connection criteria)

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

N/A

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

N/A

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.71

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

122,842

Metric denominator

unit total revenue

Metric denominator: Unit total

172,348

Scope 2 figure used

Location-based

% change from previous year

4.6

Direction of change

Decreased

Reason(s) for change

Change in output
Change in methodology

Please explain

Since 22, subsidiaries and overseas workplaces have also increased their emissions, including organizational boundaries, but their sales have increased very significantly, reducing their original emissions.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	3,384.53	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	10.1	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	24.5	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Republic of Korea	3,982
United States of America	162
United Kingdom of Great Britain and Northern Ireland	18
Russian Federation	15
China	174
Viet Nam	12
Singapore	5
India	171

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Suwon Data Center	501.68	37.25759	127.058865
Sangam Data Center	84.88	37.582909	126.886979
Gumi Data Center	261.1	36.1074	128.415101
Chuncheon Data Center	19.14	37.84664	127.701969

East Campus	706.05	37.516594	127.101056
West Campus	1,606.05	37.516368	127.100359
Seoul R&D Campus	176.92	37.466143	127.022977
Communication Point (Node/AP)	0	37.25759	127.058865
Pangyo Logisitcs Campus	62.6	37.395863	127.108533
Giheung Tera Tower	0	37.2314	127.0709
Dongtan Data Center	0.71	37.1769	127.097
Pangyo IT Campus	0	37.395086	127.109081

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Republic of Korea	116,144	
United States of America	554	
United Kingdom of Great Britain and Northern Ireland	107	
Russian Federation	0	
China	683	
Viet Nam	120	
Singapore	124	
India	577	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Suwon Data Center	49,929.37	
Sangam Data Center	29,355.45	
Gumi Data Center	7,932.15	
Chuncheon Data Center	13,601.76	

East Campus	1,462.16	
West Campus	4,336.4	
Seoul R&D Campus	870.34	
Communication Point (Node/AP)	1,120.52	
Pangyo Logistics Campus	438.64	
Giheung Tera Tower	1,410.92	
Dongtan Data Center	2,396.14	
Pangyo IT Campus	1,839.43	

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name

Secu i

Primary activity

IT services

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

73

Scope 2, location-based emissions (metric tons CO2e)

439

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name

Multi Campus

Primary activity

Education services

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

426

Scope 2, location-based emissions (metric tons CO2e)

1,012

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name

MiraCom

Primary activity

IT services

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

64

Scope 2, location-based emissions (metric tons CO2e)

0

Scope 2, market-based emissions (metric tons CO2e)

Comment

Miracom's power usage is zero, including our organizational boundaries.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	28	Decreased	0.1	By installing solar energy facilities in Suwon DC, the use of renewable energy increased, and emissions were reduced.
Other emissions reduction activities	855	Decreased	4.1	A total of 855 tons were reduced in 2022 through various reduction activities for each data center.
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	17,108	Increased	81.6	Due to the recent rapid growth of the data center industry, many IT servers have been brought into our data centers, and emissions have increased.
Change in methodology	0	No change		
Change in boundary	4,735	Increased	22.6	From 2022, emissions increased as it was added to the organizational boundaries of subsidiaries and overseas subsidiaries.
Change in physical	0	No change		

operating conditions				
Unidentified				
Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	18	18
Consumption of purchased or acquired electricity		0	249,692	249,692
Consumption of purchased or acquired heat		0	6	6
Consumption of purchased or acquired cooling		0	33,152	33,152
Consumption of self-generated non-fuel renewable energy		306		306
Total energy consumption		306	282,867	283,173

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Total fuel MWh consumed by the organization

0

Comment

We don't use biomass fuel

Other biomass

Heating value

Total fuel MWh consumed by the organization

0

Comment

We don't use biomass fuel

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

We don't use any renewable fuel.

Coal

Heating value

Total fuel MWh consumed by the organization

0

Comment

We don't use coal fuel.

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

3,439

Comment

It includes diesel from emergency generators, diesel from vehicles, and gasoline.

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

14,123

Comment

BOILER FUEL FOR PRODUCING HEAT

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

N/A

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

17,563

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1,014	1,014	708	306
Heat	14,123	14,123	0	14,123
Steam				
Cooling				

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Republic of Korea

Consumption of purchased electricity (MWh)

249,691.52

Consumption of self-generated electricity (MWh)

306.31

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

33,175

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

283,172.83

C8.2h

(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Country/area of consumption of purchased renewable electricity

Sourcing method

Renewable electricity technology type

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

0

Tracking instrument used

Country/area of origin (generation) of purchased renewable electricity

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Vintage of the renewable energy/attribute (i.e. year of generation)

Supply arrangement start year

Additional, voluntary label associated with purchased renewable electricity

Comment

We did not purchase renewable electricity in the reporting year.

C8.2i

(C8.2i) Provide details of your organization's low-carbon heat, steam, and cooling purchases in the reporting year by country/area..

Sourcing method

None (no purchases of low-carbon heat, steam, or cooling)

Country/area of consumption of low-carbon heat, steam or cooling

Energy carrier

Low-carbon technology type

Low-carbon heat, steam, or cooling consumed (MWh)

Comment

C8.2j

(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

Country/area of generation

Republic of Korea

Renewable electricity technology type

Solar

Facility capacity (MW)

84

Total renewable electricity generated by this facility in the reporting year (MWh)

306.31

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

306.31

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

C8.2k

(C8.2k) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.

Samsung SDS has been expandingthe use of renewable energy by installing solar power generation and solar water heating systems on idle sites such as rooftops and parking lots. Furthermore, we are developing and implementing plans to purchase renewable energy domestically and internationally. With repect to energy generation, our data centers are equipped with solar water heating systems, solar power generation, geothermal cooling/heating systems, and geothermal heat pumps. There are plans to continuously increase the production of renewable energy in the future. In addition, Samsung SDS is promoting the transition to renewable energy both domestically and internationally. In the short
term, there are plans to transition to renewable energy sources, taking into consideration the renewable energy volume, unit price(economic feasibility), and factors such as Green Premium

and Renewable Energy Certificates(REC). In the medium to long term, we will accelerate the transition to renewable energy through Power Purchase Agreement(PPA) contracts and participation in equity investments through partnerships with external entities.

C8.2l

(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?

	Challenges to sourcing renewable electricity
Row 1	No

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

Metric numerator

497

Metric denominator (intensity metric only)

953

% change from previous year

48

Direction of change

Decreased

Please explain

Excluding the amount of recycling

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

22 년도 삼성 SDS Scope3 검증의견서(영문).pdf

Page/ section reference

1P

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

22 년도 삼성 SDS Scope3 검증의견서(영문).pdf

Page/ section reference

1p

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Upstream leased assets
Scope 3: Investments

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

22 년도 삼성 SDS Scope3 검증의견서(영문).pdf

Page/section reference

1p

Relevant standard

IS)14064-1

Proportion of reported emissions verified (%)

89

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Korea ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Korea ETS

% of Scope 1 emissions covered by the ETS

75

% of Scope 2 emissions covered by the ETS

97

Period start date

1 월 1, 2022

Period end date

12 월 31, 2022

Allowances allocated

105,644

Allowances purchased

21,290

Verified Scope 1 emissions in metric tons CO2e

3,419

Verified Scope 2 emissions in metric tons CO2e

114,693

Details of ownership

Facilities we own and operate

Comment

Subsidiaries and overseas subsidiaries do not fall under K-ETS

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

As Samsung SDS has been subjected to the GHG emissions Trading Scheme since 2015 in accordance with the Framework Act on Low Carbon, Green Growth, the company has been reporting GHG emissions on Scope 1, 2 to the Ministry of Environment. Designated workplaces where GHG emissions must be reported include 4 data centers, headquarter, 3 campuses, and communication hubs distributed throughout the country. The company established a GHG inventory system to aggregate data center energy consumption and GHG emission data in real time.

Samsung SDS responds to the emission trading system by actively implementing greenhouse gas emission reduction activities centered on products and business sites. In order to reduce CO2 emissions of data centers, Samsung SDS reduced GHG emissions through free cooling system, solar water heating, and use of renewable energy (solar power and geothermal energy) in the year of 2021. 4 data centers reduced GHG emissions by investing on facilities such as free cooling system, containment, solar water heating system, ventilation inverter, and improving data center operation.

The response strategy for Korea ETS, that we are participating, is primarily to reduce GHG emissions by various method such as investment on energy saving facilities and improvement of operation. Also, if GHG target is not fulfilled by analyzing the prediction of GHG reduction and emissions, emission units should be purchased in Korean Exchange(KRX). We now achieve our emission target with various emission reduction practices and by precise predictions.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Provide training, support, and best practices on how to make credible renewable energy usage claims

Climate change performance is featured in supplier awards scheme

Facilitate adoption of a unified climate transition approach with suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

100

Rationale for the coverage of your engagement

Samsung SDS is operating the management framework to facilitate the action of suppliers in terms of corporate sustainable management including climate change issues and management of GHG emissions. To do that, Samsung SDS developed ESG integrated code of conduct which should be observed by suppliers as part of contractual relationship with Samsung SDS. This code of conduct deals with largely four ESG areas including environmental issues such as climate change. Samsung SDS requires all

suppliers for self-assessment on ESG management, and execute on-site inspection for suppliers with high risks.

Impact of engagement, including measures of success

ESG code of conduct (CoC) for suppliers has been introduced, and all suppliers have agreed on and committed to it. During the process of fulling contractual activities, Samsung SDS periodically evaluate how well ESG values ingrained in the CoC are realized and managed by suppliers though self-assessment, on-site audit by Samsung SDS and evaluation-based feedback between Samsung SDS and suppliers. Upon the evaluation, suppliers with excellent level of ESG management has the advantage for securing and maintaining supply contract. Expected impact of this supplier management framework is to accelerate suppliers to manage and reduce GHG emissions proactively.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

Sharing information of acquiring Platinum from Green Data Center Certification and Green-Logistics Company certification

Impact of engagement, including measures of success

Providing more efficient data center services saving 20%< energy cost compared to our global peer data center privders (Chuncheon PUE 1.27)

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization’s purchasing process?

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

A non-contractual supplier code of conduct featuring climate-related requirements

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment
First-party verification
Second-party verification
On-site third-party verification
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

We are active in associations representing the industry and actively express our position.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

KDCC(Korea Data Center Council)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

KDCC is an association representing data center industry under the Ministry of Science and ICT (MSIT). We delivered the opinions to the government that data centers contribute to country's total reduction of GHG and assign data center businesses to ETS. The positions of our company and the association are basically the same, and we actively express our position.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

0

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Samsung-SDS-Sustainability-Report-2023.pdf

Page/Section reference

We have been publishing sustainability reports based on GRI standards since 2020.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD)	Our company discloses corporate performance in a form that conforms to TCFD.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Samsung SDS is certified with ISO14001 for all business sites including consideration of biodiversity-related issues

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, and we do not plan to do so within the next 2 years

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
No publications		

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Executive Vice President	Chief Financial Officer (CFO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Founded in 1985, Samsung SDS is an ICT company with solutions which have been leading the digital transformation and innovation of clients for over 30 years across a wide range of industries. With operations in 40+ countries, Samsung SDS' solutions utilize advanced analytics platforms, AI, blockchain, cloud technologies to serve a diverse range of industries including financial services, smart manufacturing, global logistics, and retail. Our vision for the new era is to become a data-driven digital transformation leader by leveraging the most advanced ICT technologies and solutions to discover actionable insights. Sustainability is central to Samsung SDS to enable digital technologies to make life better for everyone, everywhere. Setting goals for sustainability, Samsung SDS focuses where we can have the greatest impact. We recognize and embrace the opportunity and responsibility to address some of the greatest shared challenges facing society today, including climate change, the shift to cleaner energy, access to quality education and economic opportunity, human rights protection throughout the supply chain, and data security and privacy. We are committed to enabling to achieve a low-carbon.
We are working to support all UN Sustainable Development Goals and TCFD. To find out more about us, please read our Sustainability Report at
https://www.samsungsds.com/en/sustainability/downloads.html

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	17,234,750,000,000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
EQUINIX, INC.

Scope of emissions
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

97

Uncertainty (±%)

5

Major sources of emissions

IT services

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

6,364,637,414

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(Customer IT Services sales amount/SDS IT Services sales amount) multiplied by Samsung SDS Scope 2 emission

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Requesting member

Corning Incorporated

Scope of emissions

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

282

Uncertainty (±%)

5

Major sources of emissions

IT services

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

18,472,779,781

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(Customer IT Services sales amount/SDS IT Services sales amount) multiplied by Samsung SDS Scope 2 emission

---

Requesting member

Corning Incorporated

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 4: Upstream transportation and distribution

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

38

Uncertainty (±%)

5

Major sources of emissions

Logistics

Verified

No

Allocation method

Allocation based on the chemical content of products purchased

Market value or quantity of goods/services supplied to the requesting member

115,079,343

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(customer logistics services sales amount/SDS logistics services sales amount) multiplied by Samsung SDS Scope 3 emission

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Requesting member

Harman International Industries Inc

Scope of emissions

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1

Uncertainty (±%)

5

Major sources of emissions

IT services

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(Customer IT Services sales amount/SDS IT Services sales amount) multiplied by Samsung SDS Scope 2 emission

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Requesting member

Harman International Industries Inc

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 4: Upstream transportation and distribution

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

9,715

Uncertainty (±%)

5

Major sources of emissions

Logistics

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

29,192,654,425

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(customer logistics services sales amount/SDS logistics services sales amount) multiplied by Samsung SDS Scope 3 emission

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Requesting member

Samsung Display Co.,Ltd

Scope of emissions

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

3,566

Uncertainty (±%)

5

Major sources of emissions

IT services

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

233,798,610,350

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(Customer IT Services sales amount/SDS IT Services sales amount) multiplied by Samsung SDS Scope 2 emission

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Requesting member

Samsung Display Co.,Ltd

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 4: Upstream transportation and distribution

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

44,733

Uncertainty (±%)

5

Major sources of emissions

Logistics

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

134,419,521,159

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(customer logistics services sales amount/SDS logistics services sales amount) multiplied by Samsung SDS Scope 3 emission

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Requesting member

Samsung Electronics

Scope of emissions

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

49,441

Uncertainty (±%)

5

Major sources of emissions

IT services

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

3,241,079,135,417

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(Customer IT Services sales amount/SDS IT Services sales amount) multiplied by Samsung SDS Scope 2 emission

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Requesting member

Samsung Electronics

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 4: Upstream transportation and distribution

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

2,805,103

Uncertainty (±%)

5

Major sources of emissions

Logistics

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

8,429,137,713,959

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions was assumed by ratio of IT Services sales(customer logistics services sales amount/SDS logistics services sales amount) multiplied by Samsung SDS Scope 3 emission

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Annual Report, Sustainability Report, and internal system

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	N/A

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Although Scope 2 emissions allocated by sales amount, Samsung SDS will provide customers to see their carbon emissions automatically calculated with weight and distance for each transportation through the Cello, Samsung SDS' logistics platform.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Samsung Electronics

Group type of project

Reduce Logistics Emissions

Type of project

Route optimization

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

0

Estimated payback

0-1 year

Details of proposal

Amount of carbon savings cannot be estimated at this stage. However, with Smsung SDS Cello that proposes optimized routes for logistics and eco-friendly transportation modes, customer certainly could reduce carbon emitted during their logistics operations which counts for Samsung SDS' scope 3 emissions.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms