

Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

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

- 1) Through change and innovation, Samsung SDI endeavors to become a global leader in energy and high-tech materials and expand its business into fields such as small-sized batteries and automotive batteries, energy storage systems (ESS), and electronics materials.
- 2) More information is available on Samsung SDI website's company page.
 - * <http://www.samsungsdi.com/>
- 3) Sustainability Report download weblink.
 - *<https://www.samsungsdi.com/sustainable-management/sustainability/report/sustainability-report.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

January 1, 2022

End date

December 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.

- Austria
- China
- Hungary
- Malaysia

Republic of Korea
 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.

Operational 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	KR7006400006

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 Chair	Samsung SDI created the Sustainability Management Committee under the Board of Directors in January 2022, and Sustainability Management Office under the direct leadership of the Chief Financial Officer(CFO) in February to bolster our company-wide sustainability management governance. We also launched the Sustainability Management Council as a C-level consultative body led by the CEO

	<p>to reinforce the role of top management. In early 2023, we created the ESG Part under the support team of each business division to disseminate ESG management at each level of the Company.</p> <p>In January 2022, we established a sustainable management committee under the Board of Directors to systematically manage sustainable management including climate change response. The committee reviews and resolves the strategies and measures that respond to risks of climate change. In 2022, the committee had 5 meetings and made important decisions on climate change response, including joining the RE100 initiative, declaring environmentally-friendly management, and selecting and promoting environmental management strategies.</p> <p>Samsung SDI has Sustainable Management Council, a C-suite council led by the CEO, to discuss and manage key issues and respond strategies regarding climate change (using renewable energy, reducing greenhouse gas emission, etc). The Council meets 4 times a year, to get briefings, discuss, check, and make decisions on all issues and challenges related to sustainable management of the company including climate change. It is the largest meetings led by the CEO.</p>
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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 – all meetings	Reviewing and guiding annual budgets Overseeing and guiding employee incentives 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	Samsung SDI has newly established and operated a sustainable management committee under the Board of Directors to systematically manage climate change-related risks. The committee consists of 4 outside board members and serves as the highest decision-making body regarding climate change response. In 2022, the committee had 5 meetings and made important decisions on climate change response, including joining RE100 initiative, declaring environmentally-friendly management, and selecting and promoting environmental management strategies. <ol style="list-style-type: none"> 1) In April 2022, the BoD discussed the agenda of establishing ESG strategies and a sustainable management implementation system. 2) In September 2022, the BoD reviewed simulations on achieving RE100 for joining the RE100 initiative, and discussed RE100 targets for each plant. 3) In October 2022, the BoD discussed ESG due

	<p>Monitoring progress towards corporate targets</p> <p>Overseeing and guiding public policy engagement</p> <p>Overseeing value chain engagement</p> <p>Reviewing and guiding the risk management process</p>	<p>diligence plan that expands supply network's engagement in climate change response, joining the RE100 initiative, and major achievements regarding environmental management declaration.</p>
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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	<p>When appointing outside directors, Samsung SDI elects a person with expertise in various areas to make managerial decisions. The person shall meet the qualifications as set forth in relevant regulations or the articles of incorporation and has great knowledge and experience in business and economy, law, electronic engineering, risk management, ESG strategies, etc.</p> <p>The newly appointed outside director in 2023 was elected to enhance ESG management expertise. The director was the private sector specialist at the presidential "Carbon Neutrality and Green Growth Commission" to convert to a carbon neutral society and has great knowledge and experience in climate change response.</p> <p>Samsung SDI has annual performance review of the outside directors' activities. We conduct performance review of the qualitative indicators including outside directors' expertise and use the result when re-appointing outside directors.</p>

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

- Managing annual budgets for climate mitigation activities
- Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
- Providing climate-related employee incentives
- Developing a climate transition plan
- Implementing a climate transition plan
- Integrating climate-related issues into the strategy
- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Managing public policy engagement that may impact the climate
- Managing value chain engagement on climate-related issues
- Assessing climate-related risks and opportunities
- 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

More frequently than quarterly

Please explain

Samsung SDI has newly established and operates a sustainable management committee under the Board of Directors to systematically manage climate change-related risks. The committee consists of 4 outside board members and serves as the highest decision-making body regarding climate change response. In 2022, the committee had 5 meetings and made important decisions on climate change response, including joining RE100 initiative, declaring environmentally-friendly management, and selecting and promoting environmental management strategies.

- 1) The BoD discussed the agenda of establishing ESG strategies and a sustainable management implementation system.
- 2) In September 2022, the BoD reviewed simulations on achieving RE100 for joining the RE100 initiative, and discussed RE100 targets for each plant.
- 3) In October 2022, the BoD discussed ESG due diligence plan that expand supply network’s engagement in climate change response, joining the RE100 initiative, and major achievements regarding environmental management declaration.

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	Comment
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	of climate-related issues	
Row 1	Yes	Since 2022, we have been measuring the sustainable management (ESG) performance of executives to effectively manage ESG activities, including climate change issues, and enhance executive accountability. At the beginning of each year, executives will incorporate ESG indices as key performance indicators (KPIs) when setting their individual MBO targets. During the year-end performance review, individual ESG performance will be assessed as part of the evaluation process, which will affect the remuneration system. From 2023, we are preparing to share ESG targets, performance measurements, and evaluations at the organizational level to enhance ESG implementation across business units. Each performance will be evaluated and linked to financial incentives.

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 Financial Officer (CFO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Bonus – set figure

Salary increase

Performance indicator(s)

Implementation of employee awareness campaign or training program on climate-related issues

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

All executives of Samsung SDI, including the CFO, have an MBO index that incorporates completion of the ESG education course, which covers the issue of climate change. The MBO index serves as the basis for performance evaluation. This year's evaluation results will determine next year's remuneration and promotion decisions. Executives may receive additional incentives proportional to their annual salary based on their performance results.

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

The ESG education course, which serves as a performance index for determining financial incentives, covers climate change-related topics such as implementing RE100 initiative and reducing GHG emissions through reducing consumption of electricity and fuel, including LNG. Therefore, it can be said that this incentive program contributes to the implementation of the transition plan, including Samsung SDI's greenhouse gas emission reduction target, net-zero target, and RE100 implementation.

Entitled to incentive

All employees

Type of incentive

Monetary reward

Incentive(s)

- Bonus - % of salary
- Bonus – set figure
- Promotion
- Salary increase

Performance indicator(s)

- Achievement of a climate-related target
- Implementation of an emissions reduction initiative
- Reduction in absolute emissions
- Reduction in emissions intensity
- Energy efficiency improvement

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Samsung SDI's 'Global Annual Awards' is a year-end reward program that recognizes excellent ESG performances, including achievements related to climate change. The winner of the ESG sector will receive a monetary incentive. Additionally, the award winner will receive additional score in the year-end personnel evaluation, which can affect promotion and annual salary increase.

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

The evaluation of the year-end reward program assesses the contribution of executives and employees in reducing GHG emissions and energy consumption at plants. The results are reviewed by the corporate-wide evaluation committee. We believe that the incentives contribute to the achievement of Samsung SDI's GHG reduction target and net-zero target.

Entitled to incentive

Other C-Suite Officer

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Reduction in absolute emissions

Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Samsung SDI evaluates the achievements in reducing greenhouse gas emissions in both absolute quantity and intensity by business departments, and connects the results with the incentive system (% of salary).

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

When the performance index for reducing GHG emissions in absolute quantity and intensity is met, incentives will be awarded to the heads of business departments, as well as their employees and executives. This incentive program contributes to the achievement of Samsung SDI's GHG emission reduction targets in terms of both absolute quantity and intensity, as reported to the C4 module.

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	0	3	Samsung SDI’s definition of “short-term” is the period until 2025.
Medium-term	3	8	Samsung SDI’s definition of “medium-term” is the period until 2030.
Long-term	8	28	Samsung SDI’s definition of “long-term” is the period from 2030 to 2050.

C2.1b

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

- The definition of "substantive financial or strategic impact" used to identify and evaluate climate change risks

Samsung SDI utilizes the updated Global Reporting Initiative (GRI) Standard, EU Corporate Sustainability Reporting Directive (CSRD), and the draft sustainability disclosure standard of the International Financial Reporting Standard (IFRS) as the basis for materiality assessment. Through this process, key topics are identified and evaluated based on their potential for high financial impact on the company.

*The greenhouse gas (GHG) emissions generated throughout the entire value chain have a negative impact on climate change and could result in regulatory management costs related to GHG emission trading. Therefore, we consider it to have a high financial impact.

*Expanding the use of renewable energy is an active response to climate change. Simultaneously, it contributes to securing contracts and enhancing trading relationships with leading global customers that require a transition to 100% renewable energy. Therefore, we consider it to have a high financial impact.

- The quantitative index used to define “substantive financial or strategic impact”

The main index used to define the impact include corporate-wide GHG emissions and the emission trade price trend. Corporate-wide GHG emissions are reported to the highest-level management on a monthly basis. To minimize the financial impact, we have implemented an internal carbon pricing system. This system ensures reserves are allocated in the management plan to account for GHG emission forecasts and potential shortages, thereby mitigating risks.

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

*Climate Change-Related Risks and Opportunity Management Process

Samsung SDI's "Climate Change-Related Risks and Opportunity Management Process" is integrated to the company's "corporate-wide risk management system" for operation.

The process at Samsung SDI begins with the identification and evaluation of climate change-related risks to determine their impact. Strategies are then formulated to address the impact on the company, and decisions are made accordingly.

Based on the ISO 14001 Environmental Management System certification obtained by all plants of Samsung SDI, business departments related to EHS, infrastructure, marketing, and procurement, will assess the climate change impact on external regulations and trends, internal organizational activities, and products. The ESG Strategy Group and ESG Working Group analyze and prioritize the identified risks and opportunities based on their financial impact, physical occurrence, and the current level of response.

The results are reported to the quarterly consultative group, the "Sustainable Management Council," to discuss responsive strategies and action plans. Material risks are then reported to the "Sustainable Management Committee," and the agenda is raised for decision-making. Climate change-related risks arising from national regulations are considered in corporate-wide business decision-making to ensure integrated management.

Samsung SDI has the "Sustainable Management Council," a C-suite council led by the CEO, to discuss and manage key issues and respond strategies regarding climate change (using renewable energy, reducing greenhouse gas emission). The Council meets 4 times a year, to get briefings, discuss, check, and make decisions on all issues and challenges related to sustainable management of the company including climate change. It is the largest meetings led by the CEO.

Samsung SDI has newly established and operates a sustainable management committee under the Board of Directors to systematically manage climate change-related risks. The committee consists of 4 outside board members and serves as the highest decision-making body regarding climate change response. In 2022, the committee had 5 meetings and made important decisions on climate change response,

including joining RE100 initiative, declaring environmentally-friendly management, and selecting and promoting environmental management strategies.

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	<ul style="list-style-type: none"> * Risk : ETS(Emission Trading Scheme) * Result : Samsung SDI has participated in Korean GHG Emission Trading Scheme since 2015 and Samsung SDI Hungary Plant has participated in European GHG Emission Trading Scheme since 2021 to implement emission submission mandate and manage targets.
Emerging regulation	Relevant, always included	<ul style="list-style-type: none"> * Risk : EU battery regulation * Impact : Failing to comply with the EU battery regulation's requirement for disclosing the battery product's carbon footprint and respond to the maximum limit may act as a difficulty in selling batteries in the European market. However, if we take a long-term response by establishing LCA calculation system, it can be utilized to develop low carbon emission batteries. This will be an opportunity to secure competitiveness of Samsung SDI's future products.
Technology	Relevant, always included	<ul style="list-style-type: none"> * Risk : Expand low-carbon technology and product R&D * Impact : Technological risks can replace existing product to low-carbon product. Samsung SDI manufactures core parts embedded in products essential in low-carbon society, such as electronic vehicles and ESS (energy storage systems). Expanding R&D investment in the area can enforce technological capacity. Thus, we expect that the impact to Samsung SDI will be limited.
Legal	Relevant, always included	<ul style="list-style-type: none"> * Risk : ACT ON THE ALLOCATION AND TRADING OF GREENHOUSE-GAS EMISSION PERMITS * Impact : Samsung SDI has been designated as an allocation company under the ACT ON THE ALLOCATION AND TRADING OF GREENHOUSE-GAS EMISSION PERMITS and participated in the emission trading scheme. Samsung SDI systematically manages emissions and targets through MRV (Monitoring, Reporting, Verification) carbon management system and s-GEMS IT system. As part of the GHG reduction efforts, we have fulfilled our obligation under the GHG emission trading scheme for six years, including the first and second planning periods, without purchasing emission allowances.
Market	Relevant, sometimes included	<ul style="list-style-type: none"> * Risk : Customers' increasing requests to reduce carbon emissions in products and transition to renewable energy * Impact : Market risk is categorized into risks that customers are exposed to and risks that Samsung SDI is exposed to because of its

		<p>customers.</p> <p>The risks that customers are exposed to are changes in market demand and supply caused by physical risks associated with climate change. However, the battery-powered products are responding to climate change and its market is expected to grow. Therefore, we consider the risk is low. However, the customer's carbon reduction efforts could increase their operational cost which could affect the battery purchase. We analysed the major customer's greenhouse gas data (S&P Trucost) for the matter and concluded the financial impact risk is low.</p> <p>The risks to which Samsung SDI is exposed because of its customers are the transition to renewable energy and reduction of product carbon emission. Failure to respond to the matter could lead to losing contract and business opportunities. Thus, Samsung SDI plans to the transition to 100% renewable energy by 2050 and is considering an efficient transition in terms of cost.</p>
Reputation	Relevant, sometimes included	<p>* Risk : Climate risk evaluation and disclosure request</p> <p>* Impact : Reputation risk occurs when interested parties including investors make inappropriate climate risk responses or information disclosures. It may lead to difficulty in fund-raising or losing business opportunities. Annually, Samsung SDI operates Carbon Disclosure Project to disclose climate change response. We plan to disclose agenda such as the strategies of 100% transition to renewable energy or carbon neutrality roadmap that will be decided through climate change response related decision-making system.</p>
Acute physical	Relevant, sometimes included	<p>* Risk : Typhoon, flood, heat wave, fire, etc</p> <p>* Impact : Samsung SDI assessed the physical hazards present in plants using open source tools such as WRI and Think Hazard. As a result, some plants were found to have high physical risks of typhoons, floods, heat waves, and fires. We plan to relieve the risks through measures of regular inspections, facility stability enhancement, disaster insurance, etc.</p>
Chronic physical	Relevant, sometimes included	<p>* Risk : Abnormal temperature, drought, sea level rise</p> <p>* Impact : We assessed physical hazards present in plants using open source tools such as WRI and Think Hazard, and found out we will be faced with chronic physical risks due to natural disasters, such as constant temperature increase or sea level rise in the long-term. We consider such risks in developing business plans or considering new plant construction.</p>

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 direct costs

Company-specific description

Samsung SDI has participated in Korean GHG Emission Trading Scheme since 2015, and Samsung SDI's Hungary Plant has participated in European GHG Emission Trading Scheme since 2021 to implement emission submission mandate and manage target. In November 2022, the Korean government announced "Plans to improve GHG Emission Trading Scheme to promote GHG reduction" jointly by relevant ministries and agencies. They announced their plan to expand the paid allocation regarding GHG emission allowances currently allocated to corporates. Currently, Samsung SDI is categorised into electronics and electrical industry sector and is allocated with free emission allowances. In case we are designated for 100% paid allocation, the managerial cost for emission allowances can increase exponentially. In addition, some facilities in Hungary Plant are designated to EU ETS since October 2021 and implements reporting, allocation, management, submission obligations regarding emission allowances. The EU carbon emission allowance price can rise to over 100 EUR per ton.

Time horizon

Long-term

Likelihood

Very likely

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)

7,875,108,560

Potential financial impact figure – maximum (currency)

26,968,228,900

Explanation of financial impact figure

In 2022, Samsung SDI plants participating in the GHG Emission Trading Scheme generated GHG emission volume of 582,503 tons. We assumed the total emission amount will be subject to paid allocation and applied KAU 22 (Korean Allowance Unit)'s maximum price of 32,700/ton and minimum price 10,800/ton for calculation. Samsung SDI Hungary Plant's EU ETS GHG emission volume is 55,856 tons. We calculated EU ETS emission trading price between 20 EUR/ton and 100 EUR/ton.

Cost of response to risk

4,692,000,000

Description of response and explanation of cost calculation

Samsung SDI carries out energy-saving taskforce (TF) activities, such as replacing to high-efficiency facilities and reusing discarded energy to reduce GHG emission. We have introduced high-efficiency freezers to improve electricity efficiency and save energy; used lower temperature water in the washing process to optimize electricity consumption. In 2022, the management cost of corporate-wide energy investments and activities was calculated at KRW 4,692 million won.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation
Mandates on and regulation of existing products and services

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

The outside customer who accounts for more than 10% of Samsung SDI's 2022 revenue is a single customer related to a European automotive battery sector. The EU battery regulation mandates all batteries traded in EU regions to disclose carbon footprint and comply with the maximum carbon emission limit. We expect that the regulation to become effective soon. As for the xEV batteries, carbon footprint must be

disclosed within 18 months after the regulation comes into effect. In 36 months, the carbon footprint performance level must be disclosed, and in 54 months, the maximum LCA carbon emission level must be complied with. If one fails to comply to the maximum limit, Samsung SDI will not be able to sell its products in the European market which will have material impact on our financial plan.

Time horizon

Medium-term

Likelihood

Virtually certain

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)

0

Potential financial impact figure – maximum (currency)

2,936,140,000,000

Explanation of financial impact figure

The EU battery regulation mandates all batteries traded in EU region to have carbon footprint disclosed, and moreover, comply with the maximum carbon emission amount. Failure to comply with the maximum amount shall lead to Samsung SDI not being able to sell battery products in the European market, which will cause significant impact on the company. We calculated the financial impact figures using Samsung SDI's revenue from Europe with an assumption that sales to the European market will disappear due to the failure to comply with the maximum carbon emission.

Cost of response to risk

1,722,000,000

Description of response and explanation of cost calculation

In order to respond to the EU's battery carbon footprint regulation, we calculated carbon footprint through direct LCA operation and system establishment in parallel. In order to calculate the carbon footprint, we need data such as annual material usage amount, production volume, and waste amount by plant and model. We also need persons in charge to collaborate to collect data, and labor cost may be incurred. We also estimate other expense to be generated to purchase LCA S/W and database. We plan to build a system for an integrated response to carbon footprint, which will incur managerial cost as well.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology
Transitioning to lower emissions technology

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Samsung SDI's products such as xEV battery and ESS sales could decrease if we fail to satisfy customer's demand for low-carbon product development and energy efficiency standards. Our market share could decrease if we fail to meet the customer's need for higher battery density at a lower price with higher stability. Samsung SDI manufactures core parts embedded in products essential in low-carbon society such as EVs and ESS. Thus, expanding R&D in the sector will lead to higher technological competitiveness. We want to minimize potential financial impact.

Time horizon

Long-term

Likelihood

Very likely

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)

0

Potential financial impact figure – maximum (currency)

17,566,300,000,000

Explanation of financial impact figure

If we fail to develop low-carbon products and customers don't buy our batteries, it will directly decrease revenue and affect the revenue from all businesses. The financial

impact was calculated using Samsung SDI's battery sector revenue in 2022.

Cost of response to risk

878,873,000,000

Description of response and explanation of cost calculation

We continue our R&D efforts on developing new products and technologies for low-carbon products to actively lead the rapidly changing technology and market environment and secure the momentum for future growth. In detail, we are developing automotive batteries, which are core parts in EVs; pouch batteries for IT gadgets such as smartphones or tablet PCs; cylinder type batteries for new applications; and high-efficiency ESS batteries for electricity saving devices, which are core parts of next generation electricity network.

In order to enhance secondary battery competitiveness and respond to customers' various needs, we are improving existing material's performances and developing new materials with higher volume. In addition, we continue our research to enhance battery stability, electrochemical mechanism interpretation and analysis advancement to enhance product competitiveness.

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?

Downstream

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

There is increasing need for global transition to a low-carbon economy and the demand for EVs and ESS are increasing explosively. Samsung SDI develops high-efficiency and high volume lithium-ion secondary batteries and supplies them to automobile manufacturers. This is driven by the enforced regulation on mileage and CO2 emissions, the launch of various EV models, and improvements in the driving mileage and cost-effectiveness. Plus, the large-sized batteries for ESS continues high growth due to policies promoting environmental-friendly and improved energy efficiency in Korea and abroad.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

67,436,802,000,000

Potential financial impact figure – minimum (currency)**Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

In 2022, global EV sales exceeded 10% and continued to grow rapidly. And Samsung SDI is leading the transition to EV through battery technology innovation. Samsung SDI has placed itself as a leading provider of EV batteries, contributing to reducing environmental impact of internal combustion engine vehicles by providing high-efficiency and high-volume lithium-ion batteries. The financial impact figures were calculated based on Samsung SDI's global EV battery demand forecast and the log-term business index, incorporating our market share targets.

Cost to realize opportunity

878,873,000,000

Strategy to realize opportunity and explanation of cost calculation

We continue our R&D efforts to develop new products and technologies to actively lead the rapidly changing technology and market environment and secure the momentum for future growth. In detail, we are developing automotive batteries, which are core parts in EVs; pouch batteries for IT gadgets such as smartphones or tablet PCs; cylinder type batteries for new applications; and high-efficiency ESS batteries for electricity saving devices, which are core parts of next generation electricity network.

In order to enhance secondary battery competitiveness and respond to customers' various needs, we are improving existing material's performances and developing new high volume materials. In addition, we continue our research to enhance battery stability, electrochemical mechanism analysis advancement to enhance product competitiveness.

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

Our climate transition plan is voted on at AGMs and we also have an additional feedback mechanism in place

Description of feedback mechanism

Samsung SDI operates communication channels to effectively collect various opinions from shareholders and incorporate them into management activities so that shareholder's feedback can contribute to the climate transition plan. In 2022, Samsung SDI conducted various communication activities, such as shareholder's meetings, IR conferences and ad-hoc meetings, IR performance conference call, and disclosure of key information. Shareholders can access public business reports and sustainable management reports uploaded on the website and learn about RE100 membership, GHG emission status and targets. The company operates IR website, contact number, and ad-hoc meetings for shareholders to evaluate Samsung SDI's climate risk, demand disclosure, and request the company's climate transition plan regarding revenue-increasing low-carbon products, to give out opinions and feedbacks.

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 IEA 2DS	Company-wide		Samsung SDI analysed policy risk through Carbon Pricing Assessment to assess financial impact from climate change. We used following scenarios: 1) Scenario to implement National Determined Contribution (NDC) as it is; 2) Scenario of the policy to limit the earth’s temperature increase to 2°c by 2100 is implemented but application is delayed for a short period; 3) Scenario of all nations implementing GHG reduction policies to the maximum level to limit the earth’s temperature increase to 2°c by 2100.
Physical climate scenarios RCP 2.6	Company-wide		Samsung SDI utilized the Hazard-Vulnerability-Risk modelling of S&P Global Climonomics to analyse the financial impacts of 7 climate risk factors (abnormal temperature, sea level rise, drought, wildfires, typhoons, water scarcity, and river flooding) of its plants. The derived results evaluate the annual average of projected asset loss in 10 year period until 2100 (Modeled Average Annual Loss). The analysis model compared the analysis of RCP8.5 scenario with the highest physical risk and RCP2.6 scenario that achieves the most aggressive GHG reduction.
Physical climate scenarios RCP 8.5	Company-wide		Samsung SDI utilized the Hazard-Vulnerability-Risk modelling of S&P Global Climonomics to analyse the financial impacts of 7 climate risk factors (abnormal temperature, sea level rise, drought, wildfires, typhoons, water scarcity, and river flooding) of its plants. The derived results evaluate the annual average of projected asset loss in 10 year period until 2100

			(Modeled Average Annual Loss). The analysis model compared the analysis of RCP8.5 scenario with the highest physical risk and RCP2.6 scenario that achieves the most aggressive GHG reduction.
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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

Samsung SDI aims to address key issues using climate change scenario analysis such as 1) minimizing the financial impact related to climate change, and 2) achieving sustainable growth by securing investor and customer credibility.

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

Failing to comply with the new EU battery regulation's requirement for disclosing the battery product's carbon footprint and respond to the maximum limit may become difficulties in selling batteries in the European market. However, if we take a long-term response by establishing LCA calculation system, it can be utilized to develop low carbon emission batteries. This will be an opportunity to secure competitiveness of Samsung SDI's future products. Customers demand the transition to renewable energy and reduce carbon emission from our products. If we fail to respond to the demand, it could lead to breaching the contract and losing business opportunities. As such, we have set a target to achieve the transition to 100% renewable energy by 2050 and seek for cost-efficient measures for transition.

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	The development of battery technology as a driving force of the innovative future, and climate change are accelerating the introduction of EV batteries and ESS. To keep up with the trend, Samsung SDI has developed high-efficiency and high-density battery technology focusing on the eco-friendly aspect of the product to achieve product sustainability.

		We're sure that such efforts will lead to positive growth in company revenue.
Supply chain and/or value chain	Yes	The global effort to mitigate climate change requires actions from Samsung SDI, as well as providers and customers. Such efforts will help improve the corporate image and lead to a positive growth of the company. For such reason, we enacted the code of conduct for providers. It must be complied by all partners. All new partners must sign and submit the "CSR Compliance Agreement" as part of their effort to minimize supply chain risks. We use S-Partner certification system to monitor labor, ethics, environment, safety, and health risks for continuous improvement of our partners.
Investment in R&D	Yes	Samsung SDI manufactures core parts embedded in EVs and ESS, products essential to low-carbon society. We expect increased R&D investment in the sector will lead to a productive technological competitiveness. We strive to improve eco-friendliness, safety, and efficiency of batteries to enhance competitiveness. In addition, we focus on enhancing expertise in battery material R&D, research on material recycling for stable sourcing, and expanding ESG management.
Operations	Yes	The global efforts encouraging the use of renewable energy and increase energy efficiency in order to adapt to and mitigate climate change are spreading in the long-term. Samsung SDI's customers are demanding us to work on the transition to renewable energy to reduce carbon footprint. If we fail to respond to the demand, it could lead to breaching the contract and losing business opportunities. As such, we have set a target to achieve the transition to 100% renewable energy by 2050 and seek for cost-efficient measures for the transition. In order to achieve the purpose, we are reviewing various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants.

C3.4

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

Financial planning elements that	Description of influence
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have been influenced	
Row 1	<p>Revenues</p> <p>Direct costs</p> <p>Liabilities</p> <p>In 2022, global EV sales exceeded 10% and continued to grow rapidly. And Samsung SDI is leading the transition to EV through battery technology innovation. EV sales is showing high growth in the European market, Samsung SDI's primary customer. Global EV sales is rapidly increasing as environment-related regulation is enforced and various new EV models are launched. We expect there will be more EV models with longer mileage and more convenient functions, where Samsung SDI will improve driving mileage with leading battery technology and develop eco-friendly EV batteries with less carbon emission to position itself as a leading clean energy solution provider.</p> <p>[Direct cost: cost of transition to renewable energy] Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy.</p> <p>[Liability: GHG Emission Allowance] Samsung SDI estimates GHG emission amount of each business departments on a monthly basis to analyse potential risks of the following year. In case of GHG emission allowance shortage, it will be considered as a liability on each business department. We use the internal carbon pricing to secure a reserve fund. The internal carbon pricing is applied equally to all business departments and is also used as the basis data for trading between business departments and expense settlement.</p>

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	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with a sustainable finance taxonomy	At both the company and activity level

C3.5a

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

Financial Metric

Revenue/Turnover

Type of alignment being reported for this financial metric

Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported

Total across all objectives

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

17,566,300,000,000

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

87.3

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

86

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

90

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

Battery manufacturing is classified as "Manufacture of low carbon technologies" in the EU Taxonomy on sustainable economic activity, which is the basis of climate change reduction or adaptation of related industries. Samsung SDI's battery manufacturing primarily focuses on low-carbon technology manufacturing. Moreover, we disclose information regarding revenue, CAPEX, and R&D investments in the low-carbon sector, such as energy-efficient products and services, to develop high-efficiency batteries.

C3.5b

(C3.5b) Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2021

Base year Scope 1 emissions covered by target (metric tons CO₂e)

225,594

Base year Scope 2 emissions covered by target (metric tons CO₂e)

1,347,936

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1,573,530

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO₂e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO₂e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO₂e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO₂e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO₂e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

43.73

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

885,425.331

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

242,116

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

1,418,616

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1,660,732

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

-12.6727813265

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition

to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Abs 2

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2021

Base year Scope 1 emissions covered by target (metric tons CO₂e)

225,594

Base year Scope 2 emissions covered by target (metric tons CO₂e)

1,347,936

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1,573,530

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO₂e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO₂e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO₂e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO₂e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO₂e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO₂e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO₂e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

8.56

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

1,438,835.832

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

242,116

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

1,418,616

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1,660,732

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

-64.7407391833

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Abs 3

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2021

Base year Scope 1 emissions covered by target (metric tons CO2e)

225,594

Base year Scope 2 emissions covered by target (metric tons CO2e)

1,347,936

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1,573,530

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO₂e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO₂e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO₂e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO₂e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO₂e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

93.37

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

104,325.039

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

242,116

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

1,418,616

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1,660,732

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

-5.9353189184

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice transition to 100% renewable energy, reduction of GHG emission, transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO₂e per unit revenue

Base year

2021

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

1.7

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

9.9

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

11.6

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2025

Targeted reduction from base year (%)

75

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

2.9

% change anticipated in absolute Scope 1+2 emissions

-43.73

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

1.3

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

7

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)

8.3

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

37.9310344828

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Int 2

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO₂e per unit revenue

Base year

2021

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

1.7

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

9.9

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

11.6

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

84

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

1.856

% change anticipated in absolute Scope 1+2 emissions

-8.56

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

1.3

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

7

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)

8.3

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

33.8669950739

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Int 3

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO₂e per unit revenue

Base year

2021

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

1.7

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

9.9

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO₂e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)

11.6

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2050

Targeted reduction from base year (%)

99

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.116

% change anticipated in absolute Scope 1+2 emissions

-93.37

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

1.3

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

7

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

8.3

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

28.7356321839

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

It includes all emissions of Samsung SDI's total global Scope 1 and Scope 2. No emission source is excluded.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI will manage, reduce, and transparently disclose GHG emission and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

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

Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

2,573,172

% share of low-carbon or renewable energy in base year

9.3

Target year

2023

% share of low-carbon or renewable energy in target year

26

% share of low-carbon or renewable energy in reporting year

9.3

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

Target reference number

Low 2

Year target was set

2022

Target coverage

Country/area/region

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

1,567,433

% share of low-carbon or renewable energy in base year

15.2

Target year

2025

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

15.2

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

Target reference number

Low 3

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

2,573,172

% share of low-carbon or renewable energy in base year

9.3

Target year

2025

% share of low-carbon or renewable energy in target year

68

% share of low-carbon or renewable energy in reporting year

9.3

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

Target reference number

Low 4

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

2,573,172

% share of low-carbon or renewable energy in base year

9.3

Target year

2030

% share of low-carbon or renewable energy in target year

76

% share of low-carbon or renewable energy in reporting year

9.3

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

Target reference number

Low 5

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

2,573,172

% share of low-carbon or renewable energy in base year

9.3

Target year

2040

% share of low-carbon or renewable energy in target year

90

% share of low-carbon or renewable energy in reporting year

9.3

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

Target reference number

Low 6

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2022

Consumption or production of selected energy carrier in base year (MWh)

2,573,172

% share of low-carbon or renewable energy in base year

9.3

Target year

2050

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

9.3

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

100% transition to renewable energy target is aligned with GHG reduction target.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers all Samsung SDI plants in Korea and abroad. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Samsung SDI targets 100% transition to renewable energy of all plants in Korea and abroad by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) as our active transition plan to renewable energy was recognized. First, by 2025, all Samsung SDI's overseas corporation will 100% convert to renewable energy. Our ultimate target is to make 100% transition to renewable energy corporate-wide, by continuously increasing transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

List the actions which contributed most to achieving this target

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Abs2

Abs3

Int1

Int2

Int3

Target year for achieving net zero

2050

Is this a science-based target?

No, but we anticipate setting one in the next two years

Please explain target coverage and identify any exclusions

Samsung SDI's Net Zero target is a corporate-wide target covering the entire scope of reporting. There are no exclusions.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

Samsung SDI is pursuing initiatives such as transitioning to 100% renewable energy, reducing direct GHG emissions through LNG reduction, and transitioning to zero-emission of all business purpose vehicles, as our efforts to achieve carbon neutrality.

*We aim to achieve the transition to 100% renewable energy for corporate-wide electricity use to renewable energy by 2050 through the expansion of renewable energy at each manufacturing base. Our renewable energy transition target is 26% in 2023, 68% by 2025, 76% by 2030, and 100% by 2050.

*We aim to reduce direct GHG emission of 40K tons in 2025, 240K tons by 2030, through reducing use of LNG.

*We aim at the transition to zero-emission of all business purpose vehicles embedded with Samsung SDI batteries by 2030.

Planned actions to mitigate emissions beyond your value chain (optional)

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		
To be implemented*		
Implementation commenced*		
Implemented*	465	91,861
Not to be implemented		

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

91,861

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

Scope 1
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

31,301,851,000

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

4,692,000,000

Payback period

<1 year

Estimated lifetime of the initiative

<1 year

Comment

Every year, Samsung SDI runs energy saving TF to control energy efficiency, replacement of highly-efficient facility, efficient process building as a part of the effort to reduce GHGs. For Scope 1&2 savings, we have completed 465 projects.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	<p>Before we began our energy-saving efforts, we organized an energy-saving taskforce (TF) team collaborating with all business departments. This TF team standardizes operational methods of idle/stand-by facilities to enhance energy-saving activities; set energy-saving target by departments which will be reviewed bi-monthly at the management-led meetings to check the progress and award a prize. We expanded our energy management system (s-GEMS) to overseas plants to optimize energy consumption and better guarantee the efficiency of energy-saving. Plus, we have conducted external monitoring and verification regarding energy consumption.</p> <p>Samsung SDI has a separate budget account dedicated to GHG related energy efficiency and energy saving.</p>

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

Group of products or services

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)

Batteries

Other, please specify

rechargeable batteries for transport and energy storage system

Description of product(s) or service(s)

In terms of EU taxonomy compass, rechargeable batteries, battery packs and accumulators for transport, stationary and off-grid energy storage that SamsungSDI manufactures result in substantial GHG emission reductions in transport, stationary and off-grid energy storage and other industrial applications.

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

ISO 14040, 14044 (Life cycle assessment)

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

Use stage

Functional unit used

Greenhouse gas emissions per distance (kgCO₂e/km)

Reference product/service or baseline scenario used

Comparison of GHG emissions during operation with internal combustion engine vehicles (gasoline) (kgCO₂e/km)

(Based on 2015 research data from the Korean Ministry of Environment)

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

Use stage

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

0.000098

Explain your calculation of avoided emissions, including any assumptions

According to a research report by the Korean Ministry of Environment (2015), gasoline vehicles on average emit 192 g of GHGs per kilometer during operation, whereas electric vehicles emit 94 g of GHGs during electricity generation and no emissions during operation.

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

87

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?	
Row 1	No

C5.2

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

Scope 1

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

225,594

Comment

Scope 2 (location-based)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

1,378,315

Comment

Scope 2 (market-based)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

1,347,936

Comment

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

1,514,198

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

223,150

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

621

Comment

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

9,977

Comment

Scope 3 category 6: Business travel

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

2,193

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

847,773

Comment

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

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

666,430

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

Samsung SDI does not engage in franchise business.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO₂e)

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

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)

242,116

Comment

Domestic, Overseas

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 are reporting a Scope 2, market-based figure

Comment

We can report a Scope 2 emissions regarding market-based and location-based figures of plants in Korea and abroad.

C6.3

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

Reporting year

Scope 2, location-based

1,507,499

Scope 2, market-based (if applicable)

1,418,616

Comment

Domestic, Overseas

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?

No

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)

789,059

Emissions calculation methodology

Supplier-specific method

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

79

Please explain

We have calculated the top 90% of purchasing costs.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

12,097

Emissions calculation methodology

Supplier-specific method

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

92

Please explain

We have calculated the top 90% of purchasing costs.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

103,527

Emissions calculation methodology

Average data method

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

0

Please explain

We have calculated fuel and energy-related activities not included in the global plants' Scope 1 and Scope 2.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

118,927

Emissions calculation methodology

Fuel-based method

Distance-based method

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

61

Please explain

We have calculated the top 80% of the transportation and logistics costs

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

33,810

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Calculation is based on the volume of waste commissioned by global plants.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,726

Emissions calculation methodology

Fuel-based method

Distance-based method

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

0

Please explain

We have calculated the emissions generated from the business travels in local and overseas plants. (Overland transportations used in countries outside Korea are not included)

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

7,446

Emissions calculation methodology

Fuel-based method

Distance-based method

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

92

Please explain

We have calculated the emissions generated from commute buses in plants in Korea.

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

104

Emissions calculation methodology

Asset-specific method

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

100

Please explain

We have calculated the emissions generated from the leased assets such as overseas corporate offices.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

35,234

Emissions calculation methodology

Fuel-based method

Distance-based method

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

12

Please explain

We have calculated the top 80% of the weight in transportation and logistics services.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

95,269

Emissions calculation methodology

Average product method

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

0

Please explain

We have calculated the emissions limited to battery products.

Downstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

24

Emissions calculation methodology

Lessor-specific method

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

100

Please explain

We have calculated the emissions generated from leased properties within plants in Korea.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Samsung SDI does not have franchises.

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,713

Emissions calculation methodology

Investment-specific method

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

100

Please explain

We have calculated the emissions generated by investee companies with our ownership over 20%. Emissions from investee companies in other categories are excluded.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C-CG6.6

(C-CG6.6) Does your organization assess the life cycle emissions of any of its products or services?

Assessment of life cycle emissions	Comment

Row 1	Yes	<p>Samsung SDI conducts the Life Cycle Assessment (LCA) that analyses the environmental impact of a product during its life cycle from mining the material to disposal and recycle. We establish methods to resolve the negative impact on the environment and moreover, respond to EU battery regulation.</p> <p>Plus, we plan to calculate the carbon footprint generated throughout the process and make transparent disclosure by expanding products with carbon footprint certification. To do so, we will make efforts to build internalized capacity to calculate carbon footprint and cooperate with our partners in implementing reduction efforts.</p>
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C-CG6.6a

(C-CG6.6a) Provide details of how your organization assesses the life cycle emissions of its products or services.

	Products/services assessed	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Row 1	Representative selection of products/services	Cradle-to-grave	EU Product Environmental Footprint (EUPEF) ISO 14040 & 14044	<p>Samsung SDI aims to acquire Carbon Trust's carbon footprint certification on its major products. We calculated the carbon footprints of 49.5Ah(module) and 4.8Ah(cell) products, and acquired Carbon Trust's certification in June 2023. We applied PAS 2050 developed in U.K. and EU PEFCRs(Product Environmental Footprint Category Rules), a methodology for battery products, to calculate carbon emission throughout the process from material collection to processing and disposal. We found out the ratio of each stages differed by countries it was sold, but mostly,</p>

				<p>pre-manufacturing process of material collection, manufacturing, and distribution accounted for over 50%. It was identified that the emission management was needed in partner company's manufacturing process as well as material collection stage. It should be noted that electricity factor in various countries differed and created deviation in usage stage which affected the ratio of emission in whole process.</p>
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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

8.3

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

1,660,732

Metric denominator

unit total revenue

Metric denominator: Unit total

20,124,069,515,854

Scope 2 figure used

Market-based

% change from previous year

28

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption
Other emissions reduction activities

Please explain

*GHG reduction

Samsung SDI will manage, reduce, and transparently disclose GHG and meet the needs of interested parties to rapidly and actively respond to global climate crisis. In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic project to respond to climate change. We practice 100% transition to renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expand carbon footprint certification.

Samsung SDI has participated in Korean GHG Emission Trading Scheme since 2015 and Samsung SDI Hungary Plant has participated in European GHG Emission Trading Scheme since 2021 to implement emission submission mandate and manage targets. We enhance transparent disclosure of information through CDP and obtained A- grade in 2022. In 2023, we will join the CDP Supply Chain to manage GHG emission of partners and strengthen cooperative ties.

*Transition to renewable energy

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporation will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

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	241,725	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	121	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	270	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	84,990
China	77,062
Malaysia	17,230
Viet Nam	143
Austria	6
United States of America	453
Hungary	62,232

C7.3

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

- By business division
- By facility
- By activity

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Battery	205,507
Electronic Materials	30,376
HQ&Research center	6,233

C7.3b

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

Facility	Scope 1 emissions (metric tons CO ₂ e)	Latitude	Longitude
Cheonan Plant	31,898	36.8	127.1
Ulsan Plant	19,227	35.5	129.1
Giheung HQ and R&D	5,963	37.2	127.1
Suwon Future Technology Campus	256	37.3	127.1
Gumi Plant	4,383	36.1	128.4
Cheongju Plant	23,229	36.7	127.4
Uiwang Plant	20	37.4	127
Rental Building (Seocho Office)	14	37.5	127
Tianjin, China(TSDI)	59,576	39.4	117
Xi'an, China(SAPB)	14,742	34.2	108.8
Wuxi, China(SDIW)	2,744	32.1	120.4
Vietnam(SDIV)	143	21.2	106
Malaysia(SDIEM)	17,230	2.7	102
Austria(SDIBS)	6	47	15.5
USA(SDIABS)	453	42.7	-83.3
Hungary(SDIHU)	62,232	47.7	19.2

C7.3c

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

Activity	Scope 1 emissions (metric tons CO ₂ e)
stationary combustion	224,299
mobile combustion	7,978
waste incineration	8,856
other processes	983

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 CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Austria	252	252
China	671,208	637,141
Hungary	163,448	108,632

Malaysia	165,199	165,199
United States of America	2,522	2,522
Viet Nam	7,357	7,357
Republic of Korea	497,513	497,513

C7.6

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

By business division

By facility

By activity

C7.6a

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

Business division	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Battery	1,292,767	1,203,884
Electronic Materials	155,738	155,738
HQ&Research Center	58,994	58,994

C7.6b

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

Facility	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Cheonan Plant	199,385	199,385
Ulsan Plant	159,292	159,292
Giheung HQ and R&D	19,779	19,779
Suwon Future Technology Campus	39,153	39,153
Gumi Plant	55,996	55,996
Cheongju Plant	22,909	22,909
Uiwang Plant	937	937
Rental Building (Seocho Office)	62	62
Tianjin, China(TSDI)	445,816	411,749
Xi'an, China(SAPB)	149,496	149,496

Wuxi, China(SDIW)	75,896	75,896
Vietnam(SDIV)	7,357	7,357
Malaysia(SDIEM)	165,199	165,199
Austria(SDIBS)	252	252
USA(SDIABS)	2,522	2,522
Hungary(SDIHU)	163,448	108,632

C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Indirect emission(electricity)	1,438,901	1,350,018
Indirect emission(steam)	68,598	68,598

C7.7

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

No

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	88,900	Decreased	5.6	Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized.

				In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021.
Other emissions reduction activities	6,340	Decreased	0.4	To fight global climate change, Samsung SDI participates in the international solidarity efforts and response to climate regulations by replacing to high-efficiency facilities and recycling waste energy and reducing energy consumption. We have set energy reduction targets by 2050, derived core initiatives to achieve the target and made corporate-wide efforts. In 2022, we provided energy technology support to all plants and shared excellent improvement cases to advance energy-saving effect. We have improved operational efficiency by focusing on energy-intensive equipment and replaced them with high-efficiency equipment. We have optimized energy consumption by relaxing dehumidifier management standards and conducting T.A.B (testing, adjusting, and evaluating air conditioning systems).
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical				

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?

Market-based

C-CG7.10

(C-CG7.10) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?

Increased

C-CG7.10a

(C-CG7.10a) For each Scope 3 category calculated in C6.5, specify how your emissions compare to the previous year and identify the reason for any change.

Purchased goods and services

Direction of change

Decreased

Primary reason for change

Change in methodology

Change in emissions in this category (metric tons CO₂e)

725,139

% change in emissions in this category

48

Please explain

We used secondary data to estimate emission volume in the past. The emission volume for 2022 was calculated from emission data collected from partner companies.

Capital goods

Direction of change

First year of reporting this category

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

Direction of change

Decreased

Primary reason for change

Change in methodology

Change in emissions in this category (metric tons CO₂e)

119,623

% change in emissions in this category

54

Please explain

Past emission volume was calculated using a common emission co-efficient rather than the emission co-efficient by countries. The emission volume of 2022 was calculated using the national emission co-efficient.

Upstream transportation and distribution

Direction of change

Increased

Primary reason for change

Change in boundary

Change in emissions in this category (metric tons CO₂e)

118,306

% change in emissions in this category

999

Please explain

The emission volume changed as the scope of emission volume was expanded to 80% of the logistics and transportation service cost.

Waste generated in operations

Direction of change

Increased

Primary reason for change

Change in methodology

Change in emissions in this category (metric tons CO₂e)

23,833

% change in emissions in this category

239

Please explain

The emission volume changed as the scope of emission volume calculation was expanded to include all plants worldwide.

Business travel

Direction of change

Increased

Primary reason for change

Change in boundary

Change in emissions in this category (metric tons CO₂e)

4,533

% change in emissions in this category

207

Please explain

The emission volume changed as the scope of emission volume calculation was expanded to include all plants worldwide. (Overland transportations used in countries outside Korea are not included).

Employee commuting

Direction of change

First year of reporting this category

Upstream leased assets

Direction of change

First year of reporting this category

Downstream transportation and distribution

Direction of change

First year of reporting this category

End-of-life treatment of sold products

Direction of change

Decreased

Primary reason for change

Change in methodology

Change in emissions in this category (metric tons CO₂e)

571,161

% change in emissions in this category

86

Please explain

The emission volume changed due to the change in the calculation method (the method change to use the emission co-efficient of the major product's carbon footprint at

disposal stage)

Downstream leased assets

Direction of change

First year of reporting this category

Investments

Direction of change

First year of reporting this category

C8. Energy

C8.1

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

More than 0% but less than or equal to 5%

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	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
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	1,259,444	1,259,444
Consumption of purchased or acquired electricity		238,990	2,334,181	2,573,171
Consumption of purchased or acquired steam		0	360,905	360,905
Consumption of self-generated non-fuel renewable energy		601		601
Total energy consumption		239,591	3,954,530	4,194,121

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

Comment

Other biomass

Heating value

Total fuel MWh consumed by the organization

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

Comment

Coal

Heating value

Total fuel MWh consumed by the organization

Comment

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

31,389

Comment

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

1,228,056

Comment

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

Heating value

Total fuel MWh consumed by the organization

Comment

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

1,259,444

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	601	601	601	601
Heat				
Steam				
Cooling				

C8.2g

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

Country/area

Austria

Consumption of purchased electricity (MWh)

2,380

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

3

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

0

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

2,383

Country/area

China

Consumption of purchased electricity (MWh)

695,788

Consumption of self-generated electricity (MWh)

601

Is this electricity consumption excluded from your RE100 commitment?

No

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

83,124

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

0

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

779,513

Country/area

Hungary

Consumption of purchased electricity (MWh)

595,873

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

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

0

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

595,873

Country/area

Malaysia

Consumption of purchased electricity (MWh)

251,255

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

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

0

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

251,255

Country/area

United States of America

Consumption of purchased electricity (MWh)

5,797

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

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

0

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

5,797

Country/area

Viet Nam

Consumption of purchased electricity (MWh)

16,340

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

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

0

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

16,340

Country/area

Republic of Korea

Consumption of purchased electricity (MWh)

1,005,738

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

277,778

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

0

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

1,283,516

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

Hungary

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Renewable electricity mix, please specify

Wind/onshore : 40,949MWh, Hydropower : 14,958MWh

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

55,907

Tracking instrument used

GO

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

Hungary

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)

2022

Supply arrangement start year

Additional, voluntary label associated with purchased renewable electricity

Comment

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

Country/area of consumption of purchased renewable electricity

China

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Renewable electricity mix, please specify

Wind : 36,138MWh, Solar : 31MWh

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

36,169

Tracking instrument used

I-REC

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

India

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)**

2022

Supply arrangement start year

Additional, voluntary label associated with purchased renewable electricity**Comment**

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

Country/area of consumption of purchased renewable electricity

Hungary

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Hydropower (capacity unknown)

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

126

Tracking instrument used

GO

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

Finland

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)**

2022

Supply arrangement start year**Additional, voluntary label associated with purchased renewable electricity****Comment**

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

Country/area of consumption of purchased renewable electricity

Hungary

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Hydropower (capacity unknown)

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

88,807

Tracking instrument used

GO

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

Iceland

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)**

2022

Supply arrangement start year**Additional, voluntary label associated with purchased renewable electricity****Comment**

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

Country/area of consumption of purchased renewable electricity

Hungary

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Hydropower (capacity unknown)

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

45,000

Tracking instrument used

GO

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

Norway

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)**

2022

Supply arrangement start year**Additional, voluntary label associated with purchased renewable electricity****Comment**

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

Country/area of consumption of purchased renewable electricity

Hungary

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Hydropower (capacity unknown)

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

10,000

Tracking instrument used

GO

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

Austria

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)**

2022

Supply arrangement start year

Additional, voluntary label associated with purchased renewable electricity

Comment

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to the transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, all Samsung SDI's overseas corporations will transition to 100% renewable energy. Our ultimate target is to make a transition to 100% renewable energy corporate-wide, by continuously increasing the transition ratio from 68% in 2025, to 76% in 2030, and 90% in 2040.

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

China

Renewable electricity technology type

Solar

Facility capacity (MW)

0.49

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

601

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

601

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate**Comment**

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA, or installing solar power generation facility within the factory.

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 SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021. In 2023, Cheonan and Ulsan Plants purchased Green Premium to start the transition to renewable energy. By 2025, Samsung SDI aims to implement the transition to 100% renewable energy and contribute to providing more renewable energy in the country or region where Samsung SDI plant is located by reviewing and implementing various PPA options such as installing solar power generation facilities among others.

C8.2I

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

Challenges to sourcing renewable electricity	
Row 1	Yes, in specific countries/areas in which we operate

C8.2m

(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Republic of Korea	<p>Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)</p> <p>Lack of market data</p> <p>Lack of electricity market structure supporting bilateral PPAs</p> <p>Limited supply of renewable electricity in the market</p> <p>Regulatory instability</p>	<p>* Lack of options to procure electricity: In Korea, there are limited options available for companies to implement RE100, which are Green Premium, PPA, purchasing Renewable Energy Certificate (REC), installing renewable energy facilities for self-consumption. However, the supply of renewable energy is not sufficient, and the Green Premium program is not recognized as a GHG reduction achievement. There are limited options for the company to procure renewable energy, as mentioned above.</p> <p>*Non-existent market for PPA electricity: Under the current structure, a single business site cannot simultaneously choose direct PPA and a third party PPA. A single business site cannot have more than 2 renewable energy providers.</p> <p>*Limited supply: The renewable energy generation in Korea was 7.5% in 2021, considerably lower than other countries. A shortage of renewable energy supply is continuously pushing up the price.</p> <p>*Regulatory uncertainty: The PPA pricing recently adopted by KEPCO includes a higher price for renewable energy compared to general electricity. Plus, the user must pay higher price for general electricity when using renewable energy. It has discouraged companies from adopting PPA. Plus, companies are delaying introduction of PPA after PPA implementation was postponed twice.</p>

C-CG8.5

(C-CG8.5) Does your organization measure the efficiency of any of its products or services?

	Measurement of product/service efficiency	Comment
Row 1	Yes	<p>Samsung SDI conducts the Life Cycle Assessment (LCA) that analyses the environmental impact of a product during its life cycle from mining the material to disposal and recycling. We established methods to resolve the negative impact on the environment, and moreover, respond to EU battery regulation.</p> <p>Plus, we plan to calculate the carbon footprint generated throughout the process and make transparent disclosure by expanding products with carbon footprint certification. To do so, we will make efforts to build internalized capacity to calculate carbon footprint and cooperate with our partners in implementing reduction efforts.</p>

C-CG8.5a

(C-CG8.5a) Provide details of the metrics used to measure the efficiency of your organization's products or services.

Category of product or service

Batteries (including fuel cells)

Product or service (optional)

Samsung SDI produces automotive batteries, the core part of electric vehicles. Korea Energy Economics Institute says that electric vehicles generate 60% lower carbon emission than gasoline-powered cars .

% of revenue from this product or service in the reporting year

87.3

Efficiency figure in the reporting year

Metric numerator

Other, please specify
kgCO2e

Metric denominator

Other, please specify

Comment

Samsung SDI aims to acquire Carbon Trust’s carbon footprint certification on its major products. We calculated the carbon footprints of 49.5Ah(module) and 4.8Ah(cell) products, and acquired Carbon Trust’s certification in June 2023. We applied PAS 2050 developed in the U.K. and EU PEFCRs (Product Environmental Footprint Category Rules), a methodology for battery products, to calculate carbon emission throughout the process from material collection to processing and disposal. We found out the ratio of each stages differed by countries it was sold, but mostly, pre-manufacturing process of material collection, manufacturing, and distribution accounted for over 50%. It was identified that the emission management was needed in partner company’s manufacturing process as well as material collection stage. It should be noted that electricity emission factor differs by countries differed, which created a deviation in usage stage which affected the ratio of emission in whole process.

C9. Additional metrics

C9.1

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

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-CG9.6a

(C-CG9.6a) Provide details of your organization’s investments in low-carbon R&D for capital goods products and services over the last three years.

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

Page/ section reference

GHG Verification Opinion

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

Page/ section reference

GHG Verification Opinion

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-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

 온실가스 배출량 검증 의견서(Scope3)_삼성 SDI(영문)_r2.pdf

Page/ section reference

GHG Verification Opinion

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

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
- Scope 3: Downstream transportation and distribution
- Scope 3: End-of-life treatment of sold products
- Scope 3: Downstream leased assets

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

Page/section reference

GHG Verification Opinion

Relevant standard

Korean GHG and energy target management system

Proportion of reported emissions verified (%)

100

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?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	AA1000 Assurance Standard(AS) in accordance with	Samsung SDI states its sustainability-related organizational achievements and activities in the report. The verification team applied international verification standard of AA1000AS v3, and the KMR verification standard of SRV1000, and performed

		GRI standards	verification using the Type 2 methodology at moderate level of assurance. In other words, the verification team assessed the compliance regarding inclusivity, materiality, responsiveness, and impact principles as suggested in AA1000AP(2018), as well as the credibility and quality of data and information regarding GRI index in the report as mentioned below. The professional judgment of the verification team was applied to the materiality standard.
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	AA1000 Assurance Standard(AS) in accordance with GRI standards	Samsung SDI states its sustainability-related organizational achievements and activities in the report. The verification team applied international verification standard of AA1000AS v3, and the KMR verification standard of SRV1000, and performed verification using the Type 2 methodology at moderate level of assurance. In other words, the verification team assessed the compliance regarding inclusivity, materiality, responsiveness, and impact principles as suggested in AA1000AP(2018), as well as the credibility and quality of data and information regarding GRI index in the report as mentioned below. The professional judgment of the verification team was applied to the materiality standard.
C8. Energy	Energy consumption	AA1000 Assurance Standard(AS) in accordance with GRI standards	Samsung SDI states its sustainability-related organizational achievements and activities in the report. The verification team applied international verification standard of AA1000AS v3, and the KMR verification standard of SRV1000, and performed verification using the Type 2 methodology at moderate level of assurance. In other words, the verification team assessed the compliance regarding inclusivity, materiality, responsiveness, and impact principles as suggested in AA1000AP(2018), as well as the credibility and quality of data and information regarding GRI index in the report as mentioned below. The professional judgment of the verification team was applied to the materiality standard.

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.

EU ETS

Korea ETS

C11.1b

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

EU ETS

% of Scope 1 emissions covered by the ETS

23

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

0

Allowances purchased

62,658

Verified Scope 1 emissions in metric tons CO₂e

55,856

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

comment

Korea ETS

% of Scope 1 emissions covered by the ETS

35

% of Scope 2 emissions covered by the ETS

35

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

589,613

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO₂e

84,990

Verified Scope 2 emissions in metric tons CO₂e

497,513

Details of ownership

Facilities we own and operate

Comment

C11.1d

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

Samsung SDI has participated in Korean GHG Emission Trading Scheme since 2015. Samsung SDI systematically manages emissions and targets through MRV (Monitoring, Reporting, Verification) carbon management system and s-GEMS IT system. As part of the GHG reduction efforts, we have fulfilled our obligation under the GHG emission trading scheme without purchasing emission allowances.

[GHG reduction]

In October 2022, Samsung SDI declared environmentally-friendly management and announced strategic initiatives to respond to climate change. We practice the transition to 100% renewable energy, reduction of GHG emission, the transition to zero-emission business-purpose vehicles, and expansion of carbon footprint certification.

[Transition to renewable energy]

Samsung SDI has set a target to achieve the transition to 100% renewable energy by 2050 and joined the RE100 initiative in October 2022, as its active plan to transition to 100% renewable energy is recognized. In order to achieve the purpose, we are considering various realizable

options such as purchasing renewable energy certificates and signing PPA. In 2022, we have purchased renewable energy certificate for part of the electricity used in Hungary and Tianjin Plants, as we did in 2021.

[Energy consumption reduction]

In 2022, Samsung SDI provided energy technology support to all plants and shared excellent improvement cases to advance energy-saving effect. We have improved operational efficiency by focusing on energy-intensive equipment and replaced them with high-efficiency equipment. We have optimized energy consumption by relaxing dehumidifier management standards and conducting T.A.B (testing, adjusting, and evaluating air conditioning systems). We created a TF consisting of energy experts to continuously diagnose energy consumption on new and additional lines at plants in Korea and abroad to eliminate energy loss and improve energy efficiency.

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?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price

Drive energy efficiency

Scope(s) covered

Scope 1

Scope 2

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Static

Indicate how you expect the price to change over time

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

25,279

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

25,279

Business decision-making processes this internal carbon price is applied to
Operations

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for all decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization’s climate commitments and/or climate transition plan

Samsung SDI applies the same internal carbon pricing to all business departments to improve energy efficiency and reduce GHG emission. The internal carbon pricing is used as the data to settle expenses when the emission allowance is in shortage or excess on a GHG emission trading scheme. GHG emission shortage will be considered as a liability of each business department and used to set reserve funds. Excessive GHG emission will be incorporated to the evaluation of business departments and affect incentives as well. All business departments are making continuous efforts to reduce GHG emission, which in turn contributes to realizing Samsung SDI’s climate transition plan.

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

Information collection (understanding supplier behavior)

Details of engagement

Collect GHG emissions data at least annually from suppliers

% of suppliers by number

18

% total procurement spend (direct and indirect)

74

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

79

Rationale for the coverage of your engagement

As the awareness on carbon reduction across the value chain is necessary to achieve the global carbon neutrality spreads, managing Scope 3 (other indirect GHG emissions) of companies has emerged as a key challenge for companies. Samsung SDI organized an internal TF team with ESG, purchase, logistics, HR and administration departments, to enhance Scope 3 emission management capacity to actively participate in the global climate change response.

In order to calculate Scope 3 emissions, Samsung SDI identifies the GHG emissions of partners providing materials and equipment. In order to collect information on the emissions and GHG reduction targets of partner companies, we are collecting the information from the partners with top 90% of purchase costs.

Impact of engagement, including measures of success

Carbon reduction across the value chain is an essential element in achieving Samsung SDI's net-zero target. Samsung SDI uses GHG emissions and reduction targets collected from partner companies to reflect global demand and requests from interested parties in the SBTi(Science-Based Target initiative) to establish the Scope 3 emission reduction target. Plus, we will cooperate with partner companies to identify and pursue reduction initiatives and expand efforts to calculate more accurate Scope 3 emissions amount by expanding the scope and securing emission co-efficient.

Comment**Type of engagement**

Information collection (understanding supplier behavior)

Details of engagement

Collect targets information at least annually from suppliers

% of suppliers by number

9

% total procurement spend (direct and indirect)

32

% of supplier-related Scope 3 emissions as reported in C6.5**Rationale for the coverage of your engagement**

As the awareness on carbon reduction across the value chain is necessary to achieve the global carbon neutrality spreads, managing Scope 3 (other indirect GHG emissions) of companies has emerged as a key challenge for companies. Samsung SDI organized an internal TF team with ESG, purchase, logistics, HR and administration departments, to enhance Scope 3 emission management capacity to actively participate in the global climate change response.

In order to calculate Scope 3 emissions, Samsung SDI identifies the GHG emissions of partners providing materials and equipment. In order to collect information on the emissions and GHG reduction targets of partner companies, we are collecting the information from the partners with top 90% of purchase costs.

Impact of engagement, including measures of success

Carbon reduction across the value chain is an essential element in achieving Samsung SDI's net-zero target. Samsung SDI uses GHG emissions and reduction targets collected from partner companies to reflect global demand and requests from interested parties in the SBTi(Science-Based Target initiative) to establish the Scope 3 emission reduction target. Plus, we will cooperate with partner companies to identify and pursue reduction initiatives and expand efforts to calculate more accurate Scope 3 emissions amount by expanding the scope and securing emission co-efficient.

Comment

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

Provide training, support, and best practices on how to set science-based targets

% of suppliers by number

14

% total procurement spend (direct and indirect)

29

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

Rationale for the coverage of your engagement

Samsung SDI utilizes the training system and infrastructure of the company's job training center to support capacity building of partner companies' employees and executives. As part of the efforts, Samsung SDI responds to global regulation and interested party's demand regarding supply chain's ESG management, and provides environmental management education to enhance ESG capabilities including partner companies' response to climate change.

Impact of engagement, including measures of success

Samsung SDI newly created ESG part within the purchase team to support ESG activities such as reducing GHG emission and implementing social responsibility. The ESG part within the purchase team operates online/offline education programs to enhance ESG capabilities of the employees and executives at partner companies. Samsung SDI is operating an environmental management education program, consisting of carbon neutrality trend and corporate response, and ESG management. In 2022, a total of 180 people from 78 partner companies completed the course.

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

Samsung SDI conducts the Life Cycle Assessment (LCA) that analyses the environmental impact of a product during its life cycle from mining the material to disposal and recycling. Plus, we plan to calculate the carbon footprint generated throughout the process and make transparent disclosure by expanding products with carbon footprint certification.

Samsung SDI acquired Carbon Trust's carbon footprint certification on its major products and discloses the details in the sustainability management report for all customers to learn about it.

We calculated the carbon footprints of 49.5Ah(module) and 4.8Ah(cell) products, and acquired Carbon Trust's certification in June 2023. We applied PAS 2050 developed in the U.K. and EU PEFCRs (Product Environmental Footprint Category Rules), a methodology for battery products, to calculate carbon emission throughout the process from material collection to processing and disposal, and publicly disclosed the information.

Impact of engagement, including measures of success

Samsung SDI conducts the Life Cycle Assessment (LCA) that analyses the environmental impact of a product during its life cycle from mining the material to disposal and recycling. Plus, we plan to calculate the carbon footprint generated throughout the process and make transparent disclosure by expanding products with carbon footprint certification.

Samsung SDI acquired Carbon Trust's carbon footprint certification on its major products and discloses the details in the sustainability management report for all customers to learn about it.

We calculated the carbon footprints of 49.5Ah(module) and 4.8Ah(cell) products, and acquired Carbon Trust's certification in June 2023. We applied PAS 2050 developed in the U.K. and EU PEFCRs (Product Environmental Footprint Category Rules), a methodology for battery products, to calculate carbon emission throughout the process from material collection to processing and disposal, and publicly disclosed the information.

C12.2

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

Yes, climate-related requirements are 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

Since 2009, Samsung SDI has been operating the S-Partner certification system to manage sustainability of partner companies. We assess and certify partner's compliance of the code of conduct that was enacted considering the global standard including the climate change issue, environment, safety, ethics, and human rights. The S-Partner certification evaluation process starts from partner company's self-diagnosis to independent experts' on-site assessment and follow-up measures. The partner company with a comment on areas of improvement must submit an improvement plan within 1 month. The partner company who violated compliance clauses, or failed to win minimum scores for the certification are subject to re-evaluation.

% 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

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, we engage directly with policy makers
- 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?

Yes

Attach commitment or position statement(s)

<https://www.korea.kr/news/pressReleaseView.do?newsId=156441183>

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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

Samsung SDI conveys its stance on the domestic and international policies via Battery Industry Association and participate in policies aligned with strategies. Participating in external stances are determined by the approval of relevant departments and executives. An executive from the Safety and Environmental Infrastructure Team in charge of climate change management attended the Carbon Neutrality Committee for Electronics and Electrical Industry held in March 2021.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

ACT ON THE PROMOTION OF THE DEVELOPMENT, USE AND DIFFUSION OF NEW AND RENEWABLE ENERGY

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Climate-related targets
Climate transition plans
Emissions – CO2
International agreement related to climate change mitigation
Low-carbon, non-renewable energy generation
Renewable energy generation

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Republic of Korea

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Samsung SDI participates in the clean energy alliance that connects renewable energy projects and supports development with the Ministry of Trade, Industry and Energy governing the ACT ON THE PROMOTION OF THE DEVELOPMENT, USE AND DIFFUSION OF NEW AND RENEWABLE ENERGY and carries out the engagement activities.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

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

Korea Battery Industry Association

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

The electronics, electricals, and battery industries launched the Carbon Neutrality Committee for the Electronics and Electrical Industry along with the Ministry of Trade, Industry, and Energy and declared participation in carbon neutrality by 2050 through innovative technology development and production structure transition. This declaration aligns with the process and product efficiency improvement, resource circulation enhancement, and eco-friendly product development strategy. The former CEO of SDI headed the Korea Battery Industry Association and played a leading role in industry participation.

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

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

 삼성 SDI SR 영문 (low)수정_v0.0_사본.pdf

Page/Section reference

Samsung_SDI_Sustainability_Report

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

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	RE100 UN Global Compact	[RE100] Samsung SDI joined the RE100 initiative in October 2022 and pledged the transition to 100% renewable energy by 2050. Overseas corporations will achieve RE100 by 2025, while domestic plants target RE100 achievements by 2050. [UNGC]

		Samsung SDI joined UNGC in July 2022 to enhance corporate’s social responsibility and publicly declared to comply with 10 principles including human rights, labor, environment, and anti-corruption.
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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
Row 1	

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	

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

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

C15.4

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

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	

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		

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

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	CEO	Chief Executive Officer (CEO)