



Green Bond Impact Reporting

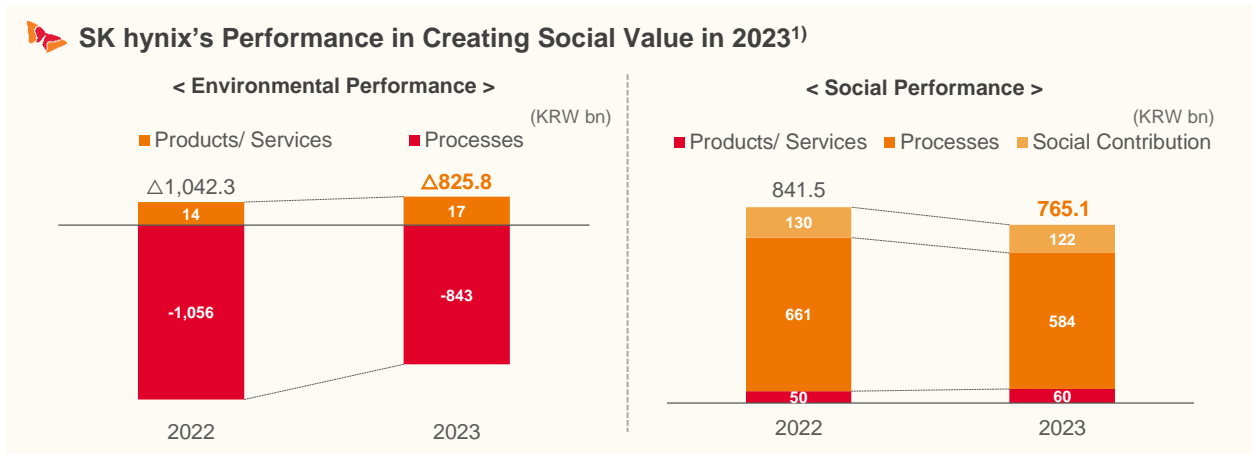
January 2025



Double Bottom Line (DBL) Management Philosophy

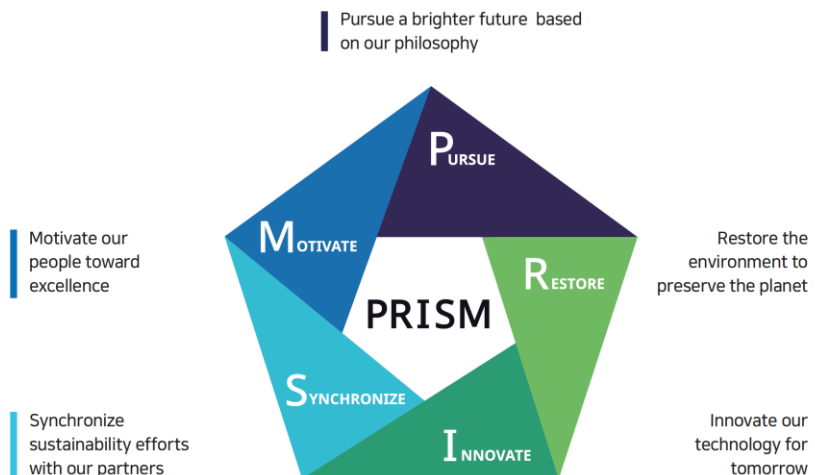
In 2023, SK hynix generated KRW 4.9845 trillion in social value (SV). This represents a 34% decrease from the SV of KRW 7.5845 trillion in 2022, broken down into “Indirect economic contribution” of KRW 5.0452 trillion, “Environmental performance” of -KRW 825.8 billion, and “Social performance” of KRW 765.1 billion. The primary reasons for the decrease in SV compared to the previous year are attributed to declines in employment and tax contributions due to the downturn in the semiconductor industry.

However, there has been a meaningful increase in social value (SV) performance in the Product/services (quality of life) category compared to the previous year, driven by initiatives supporting vulnerable groups through social enterprises. SK hynix will continue its efforts to increase SV performance alongside economic value as the business grows. The formula for measuring social value can be found on the SK Group website.



ESG Strategy

Since unveiling our distinctive ESG strategy framework, PRISM, in 2022, SK hynix has consistently engaged in transparent communication with stakeholders regarding our ESG management objectives, methods, and advancements each year.



Note: 1) The indirect economic contribution trend is not depicted in the graph

Achievements and Targets of PRISM

The analysis of SK hynix's sustainability endeavors in 2023 revealed that we successfully achieved our targets for 22 out of the total 26 goals (excluding biennially managed goals).

In May 2024, the ESG Management Committee, analyzed the outcomes and established targets for 2024. SK hynix have revised the target timeline to achieve "Doubling HBM Energy Efficiency" from the original goal of 2030 to the earlier date of 2026, advancing it by 4 years.



Pursue

Category	2030 Goals (Base year: 2020)	2023 Targets	2023 Achievements
Our Value to Society	• Generate value created from SV social contribution activities of KRW 1 trillion (cumulative)	KRW 289.1bn	KRW 372.2bn
	• Create 1,000 jobs for people with disabilities or low-income households*	1,000 jobs	1,026 jobs
	• Promote the participation of 100,000 people in the global ICT talent fostering program (cumulative)*	27,467 persons	27,471 persons
	• Help 100,000 people from underserved communities by conducting social contribution activities with cutting-edge technology (cumulative)*	28,015 persons	32,662 persons
	• Serve 12,000 people through our meal sharing program (cumulative)*	4,280 persons	4,290 persons
Robust Governance	• Increase gender/nationality diversity of the Board to 30%	20%	20%
Safety & Health at Work	• Reduce the integrated incidents rate by 10%* (Base year: 2021)	2.2% decrease	0.8% decrease
	• Reduce the rate of metabolic syndrome by 10%* (Base year: 2021)	2.2% decrease	10.9% increase

Restore

Category	2030 Goals (Base year: 2020)	2023 Targets	2023 Achievements
Climate Action	• Maintain scope 1 and 2 GHG emissions at 2020 levels	6.19mn tCO ₂ eq	5.42mn tCO ₂ eq
	• Reduce GHG emissions intensity by 57% (by 2026)	37% decrease	43% decrease
	• Create energy saving of 3,000 GWh (cumulative)	678GWh	978GWh
	• Achieve 33% renewable electricity use	30%	30%
Water Stewardship	• Conserve 600 million tons of water (cumulative)	140mn tons	158.22mn tons
	• Reduce water intensity by 35% (by 2026)	5% decrease	10% decrease
Circular Economy	• Receive ZWTL Gold (99%) certification	99% in Wuxi 95% in Chongqing	100% in Wuxi 99% in Chongqing

Note: * Figures from domestic sites

※ Emissions targets are based on market-based method. GHG emissions from the Dalian fabrication plant (acquired from Intel), and Key Foundry are not reflected. All intensities are measured by a unit of production (Gigabit equivalent)

Achievements and Targets of PRISM

Innovate

Category	2030 Goals (Base year: 2020)	2023 Targets	2023 Achievements
Sustainable Manufacturing	• Reduce GHG emissions from process gases by 40%	26% decrease	55% decrease
	• Improve the destruction and removal efficiency of scrubbers to 95%	90% (overall)	93% (overall)
Green Technology	• Double HBM energy efficiency (by 2026)	1.38 times (2024)	1.28 times (2022)
	• Increase eSSD energy efficiency by 1.8 times	1.26 times	1.28 times

Synchronize

Category	2030 Goals (Base year: 2020)	2023 Targets	2023 Achievements
Responsible Engagement	• Ensure 100% of new suppliers sign the SK hynix Supplier Code of Conduct	100%*	100%*
	• Ensure 100% of tier 1 suppliers complete online ESG self-assessment (every two years)	100%* (2025)	99%*
	• Ensure 100% of high-risk/critical suppliers receive on-site ESG assessment (every two years)	100%*	100%*
	• Triple the number of responsibly sourced minerals (from 3TG minerals to 12 minerals)	5 minerals (3TG and Cobalt)	6 minerals (3TG, Cobalt and Mica)
Shared Growth	• Invest KRW 3 trillion in technological cooperation to promote shared growth (cumulative)	KRW 782.3bn	KRW 926.6bn

Motivate

Category	2030 Goals (Base year: 2020)	2023 Targets	2023 Achievements
Inclusive Workplace	• Triple the ratio of women in executive positions (Base year: 2021)	2.4%	2.5%
	• Ensure 10% representation of women in team leader positions**	5.1%	5.1%
Empowering People	• Achieve 200 hours of annual self-development education per employee**	128 hours per employee	109 hours per employee

Note: * Figures from domestic sites

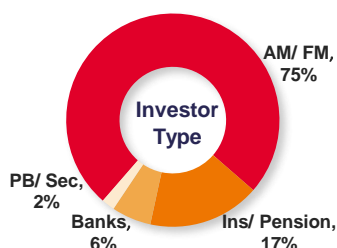
** Figures based on domestic engineering and office staff

Green Bond Key Figures

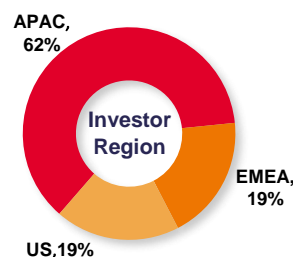
On 10 January 2023, SK hynix priced a USD 2.5bn triple-tranche Senior Unsecured Bond, consisting of a USD 750mn 3-year tranche, a USD 1bn 5-year SLB (Sustainability-Linked Bond) tranche, and a **USD 750mn 10-year Green tranche**. The net proceeds from the Green bond has been allocated toward the financing or refinancing, in whole or in part, of Eligible Projects in accordance with the Green Financing Framework.

Issuer	SK hynix Inc. ("SK hynix")
Issue type	Senior Unsecured, 144A / RegS, Green Bond
Issue Rating	Baa2 / BBB- (Moody's / S&P)
Issue Date	17 January 2023
Amount Issued	USD 750 million
Tenor	10-year
Coupon	6.500%
ISIN	144A: US78392BAF40 & RegS: USY8085FBL32

Green Bond Allocation Distribution by Investor Type



Green Bond Allocation Distribution by Geography



Allocation Highlights




Total Allocation Achieved: 100% of the total proceeds

<p>Sustainable Water & Wastewater Management</p> <p>\$ 7.45mn</p>	<p>Energy Efficiency</p> <p>\$ 733.37mn</p>	<p>Terrestrial & Aquatic Biodiversity Conservation</p> <p>\$ 0.79mn</p>	<p>Pollution Prevention & Control</p> <p>\$ 8.39mn</p>
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Allocation Reporting

 Total Allocation¹ : KRW 967,050.00mn (Equiv. USD 750mn)

 Refinancing Ratio² : 42.1%

Project Description	City ³	Amount Allocated (KRW million)			
		2020	2021	2022 ⁴	2023
Sustainable Water and Wastewater Management					
Regional municipal water project 2nd phase	IC	-	-	5,373	-
Facility investment to reduce water usage and wastewater	IC, CJ	-	-	-	259
Construction of cooling tower drainage reuse system	IC	-	-	485	34
Improvement of water pollutant treatment	CJ	-	-	3,129	-
Improvement of wastewater treatment facility	CJ	-	-	-	331
Energy Efficiency					
Development of DDR5	IC	52,410	111,235	224,966	252,429
Development of SSD	IC, CJ, BD	-	-	-	304,570
Terrestrial and Aquatic Biodiversity Conservation					
Icheon Eco Park Construction	IC	-	-	1,015	-
Pollution Prevention and Control					
Installment of monitoring system (TMS) for atmospheric management	IC, CJ	-	-	6,055	1,560
Establishment of nitrogen oxide (NOx) reduction infrastructure	IC, CJ	-	-	832	430
Improvement of waste heat recovery and temperature reduction system	IC, CJ	-	-	544	-
Investment in air pollutant analysis equipment	IC	-	-	407	-
Investment in water quality analysis equipment	CJ	-	-	984	-
Total		52,410	111,235	243,791	559,613

Note: ¹⁾ KRW/ USD = 1289.4 (as of end Dec 29, 2023)

²⁾ Refinancing Ratio = Allocation from 2020-2022 / Allocation from 2020-2023

³⁾ IC = Icheon; CJ = Cheongju; BD = Bundang

⁴⁾ Allocation to "Development of DDR5" project pertains to the entire year of 2022, while the rest only covers 2022.4Q

Impact Reporting^{1, 2, 3}



Sustainable Water and Wastewater Management

Indicator	2020	2021	2022	2023
Water Reuse and Reuse Rate				
Water Reuse (1,000m ³)	26,932	34,464	36,075	46,462
Water Reuse Rate (%)	32	37	37	44
Water Management				
Water Consumption per Revenue* (m ³ / KRW 10bn)	3,267	3,189	3,883	4,860
Water Withdrawals per Revenue* (m ³ / KRW 10bn)	21,041	16,675	17,522	22,629
Wastewater Discharge (1,000m ³)	56,700	57,984	60,858	58,221

*Values of the impact indicator increases due to decrease in revenue



Energy Efficiency

Type of DRAM	Improvement in Energy Efficiency
Improvement in Energy Efficiency vs DDR4	
DDR5 server DRAM	14.4%

Generation**	Active Read/ Write Power	Seq. Read	Performance per Watt ((MB/s)/W)	Performance Improvement***
SSD Energy Efficiency Development[†]				
PE8110 E1.S	20W	6,400MB/s	320	100.0%
PE9010 E1.S	20W	6,600MB/s	330	103.1%
PS1010 E3.S	25W	14,800MB/s	592	185.0%

*@8TB, Max Power

** PE8110 (Previous Generation)/ PE9010 (Current Generation)/ PS1010 (Released in 2023)

*** Baseline PE8110 E1.S

Type (Model Code)	Power	Read (or Write)	Performance per Watt ((MB/s)/W)	HDD vs SSD**
SSD vs HDD Performance Per Watt				
HDD Model (A)***	5.3W	190MB/s	35.8	11.2%
HDD Model (B)***	6.2W	185MB/s	29.8	9.3%

* @8TB, Max Power

** HDD Performance per Watt vs SSD (PE8110 E1.S) Performance per Watt

*** Release Year: HDD Model (A) in 2017/ HDD Model (B) in 2021

Note: ¹ SK hynix decided not to disclose the impact by each of the allocated projects due to confidentiality

² The indicators were made at the company level

³ Given the allocations were mostly for domestic projects, limited the impact indicators to domestic figures

Impact Reporting^{1, 2}

Terrestrial and Aquatic Biodiversity Conservation

Location	Area ³ (m ²)	Impact
Icheon, Korea	20,334	The ecological park near the SK hynix Icheon Campus is now open to the public. The water in the park, notable for its crystal-clear quality, originates from the wastewater treatment plant at the Icheon Campus and flows into the Jukdang Stream in Icheon.



Icheon Ecological Park

Pollution Prevention and Control

Indicators	2022 (1Q-3Q)	2022 (4Q)	2023
Installation of Air Pollutant Analysis System (unit)	-	4	-
Installation of Water Quality Measurement System (unit)	1	6	-

NOx Emission Trend	2020	2021	2022	2023
Domestic (ton)	705	490	241	221
Ichoen (ton)	364	241	158	142
Cheongju (ton)	342	249	83	79

Continuous monitoring through a biomonitoring system

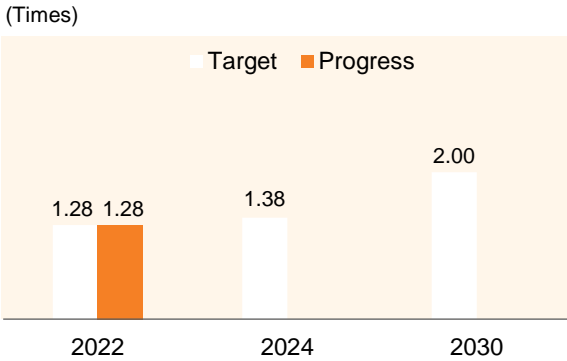
- ✓ SK hynix continuously monitors the surrounding environment to minimize any negative impact we may have on the ecosystem around our plants, and make restoration efforts if any damage is incurred.
- ✓ To this end, we have installed and operated a biomonitoring system as well as a telemonitoring system (TMS) that measures the physicochemical properties of effluent in the automatic water quality monitoring system.



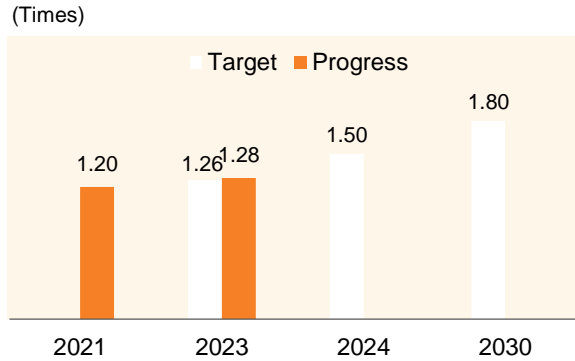
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²) The indicators were made at the company level

Case Study: Green Technology

HBM Energy Efficiency Increase



eSSD Energy Efficiency Increase



Sustainable Products

SK hynix has designated HBM and eSSD as “sustainable products” and has set specific targets: doubling HBM energy efficiency (by 2026) and increasing eSSD energy efficiency by 1.8x (by 2030). SK hynix remains steadfast in its commitment to continuously enhance the energy efficiency of these product lines. The company aims to reduce unit power consumption across various industries, including data centers and AI technology, where semiconductor usage is surging, thereby contributing to the reduction of greenhouse gas emissions.

High-efficiency Semiconductor Development

Development and Mass Production of HBM3E DRAM: In March 2024, SK hynix initiated the world’s first large-scale mass production of HBM3E. HBM3E, the 5th generation of HBM and an expanded version of HBM3, achieves world-leading performance in all aspects required for AI memory.

Commercialization of the World’s Fastest LPDDR5T DRAM : In November 2023, SK hynix began supplying customers with a 16GB Low Power Double Data Rate 5 Turbo (LPDDR5T) package for mobile applications, achieving commercialization just 10 months after the successful product development. LPDDR5T stands as the world’s fastest mobile DRAM, boasting data transfer speeds of 9.6Gb per second.

Next-Generation Mobile NAND Solution ZUFS 4.0 : In May 2024, SK hynix successfully developed Zoned UFS (ZUFS) 4.0, a mobile NAND solution for on-device AI applications. SK hynix remains committed to continuously developing high-performance, energy efficient NAND products that meet evolving customer needs.

