

2022 SK hynix Green Bond Impact Report

January 2022

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SOCIAL



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A 'Great Company' that Contributes to Humanity and Society with Technology

Semiconductor memory plays a pivotal role in the prospective ICT world. Ever since the great digital transformation spurred by the Fourth Industrial Revolution, semiconductor memory is not only used in personal computers and mobile devices but in leading pioneering technological innovations that elevate our quality of life.

Starting in 1984, SK hynix has solidified its position as the world's top-tier semiconductor supplier with its know-how and technology since its first trial production of the 16Kb SRAM in Korea. Now, beyond the development of high-capacity, high-speed, and low-power memory solutions, we have been acknowledged with a high level of reliability for technological innovations within the Smart ICT industry.

We aim not only to focus on technological development in response to the growing data generation and consumption prompted by the normalization of remote activities and technological innovations, but also to actively address various social issues such as energy deprivations, climate change, and so forth. It is our goal to create a better ICT world by materializing social and current values based on technology and the satisfaction of our members and stakeholders.

Green 2030

SK hynix has pronounced its goal of Social Value 2030 and set mid- to long-term plans in four major aspects such as 'Environment', 'Shared Growth', 'Social Safety Net', and 'Corporate Culture', reflecting the main global social problems. Green 2030 is one of the four major aspects in which we plan to set up energy efficiency goals and increase the use of renewable energy to reduce direct and indirect greenhouse gas emissions and energy use.

- RE100 by 2050
- Zero additional emission of air pollutants such as sulfur oxides, nitrogen oxides, dust, fluorine, ammonia, hydrogen fluoride by 2030
- Achieving Zero Waste to Landfill (ZWTL) Gold certification by 2030
- Increasing water reuse up to 3 times by 2030



Key Green Management: Creating a Healthier Future Through Systematic Climate Change Response

Environmental Management System

ISO 14001 certification: SK hynix operates an environmental management system that meets the requirements of local and foreign regulatory clients, and establish operational policies and review compliance on a quarterly basis for chemical management, water and air pollutant emissions, waste disposal, and energy management.

Energy Management

Energy Conservation with Renewable Energy: In order to conserve energy at the workplace, solar power generation facilities and small hydropower generators were installed at the Icheon workplace. In 2020, 793MWh of electricity was produced through solar power and 174MWh of electricity by small hydropower.

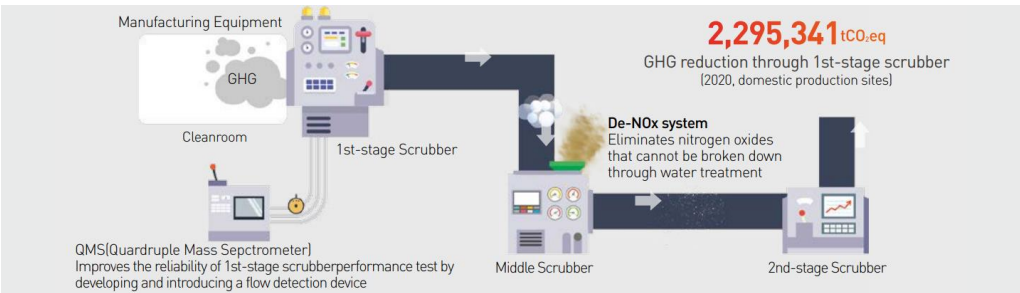
Energy Use System Optimization at Business Sites: SK hynix is trying to reduce greenhouse gas emissions by preventing energy leaks and reducing electricity consumption by optimizing the energy use system.

Major Cases of Process Energy Efficiency(Icheon / Cheongju)

Case	Details	Performance
Optimal operation of OAC(steam)	AI analysis using previous data to derive an OAC optimal operating model.	Conserved KRW 3.62 billion of steam usage
Optimal operation of OAC(electricity)		Conserved KRW 790 million of electricity
Waste heat recovery system Optimal operation(steam)	Applied optimal energy saving operation system based on data analysis from freezer / cooling tower / waste heat recovery	Conserved KRW 4.18 billion of steam usage
Freezing system Optimal operation(electricity)		Conserved KRW 2.72 billion of electricity

GHG and Air Pollutant Management

Reducing Process Gas and Fine Dust through Technological Development: SK hynix decomposes process gas after 3 steps of processing from scrubbers.



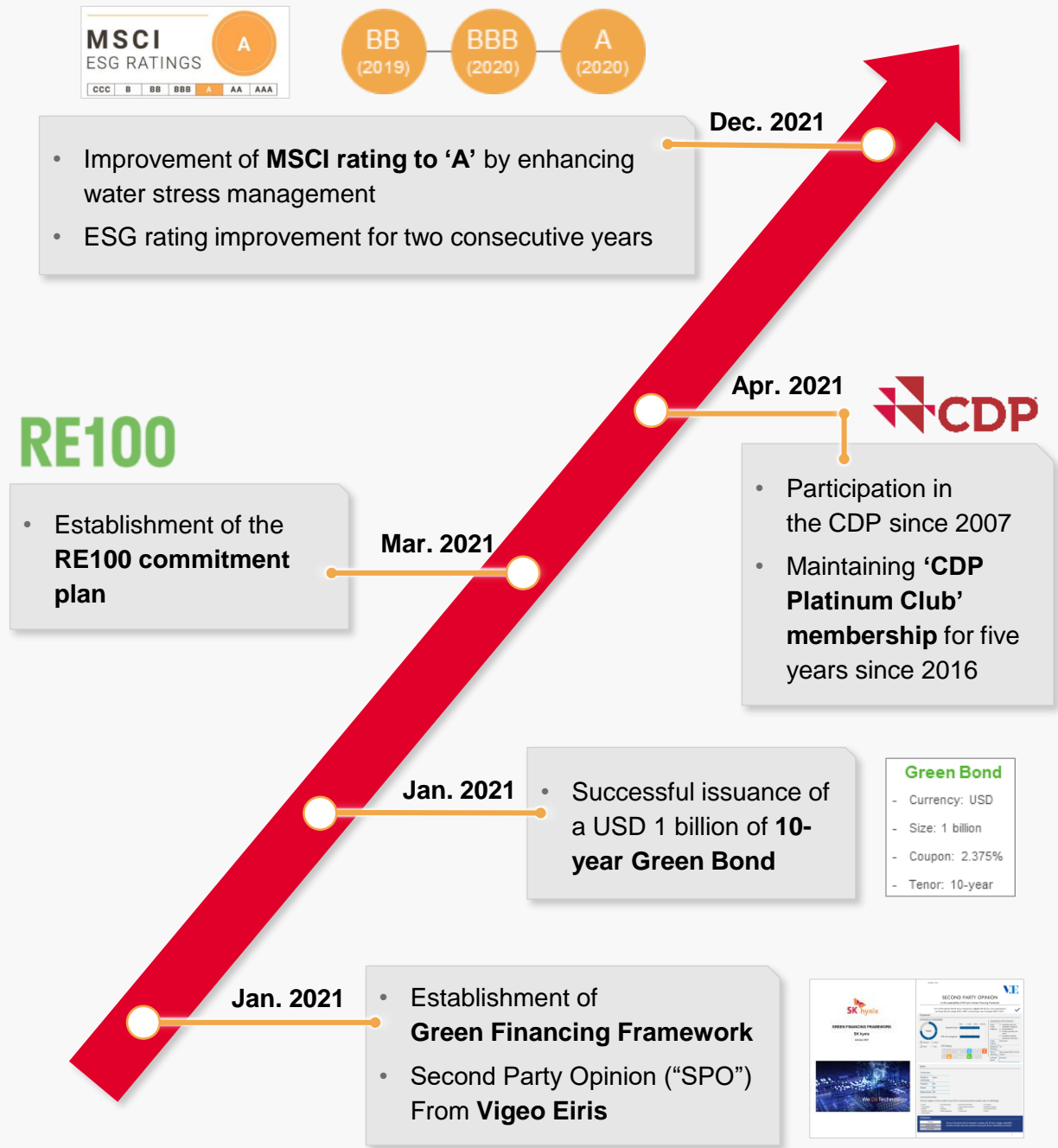
Replacing Cargo Transportation Vehicles with EVs: SK hynix replaced some of the freight vehicles in the workplace with electric vehicles.

Water Management

Efficient Water management: SK hynix evaluates the impact of production, distribution, use, and disposal of products, and establish a definition of water within the semiconductor industry through the World Semiconductor Council(WSC) and lead the declaration of water reuse joint goals.

Increase in Wastewater Reuse: SK hynix has established a system that allows water reuse through the process in the wastewater treatment plant and supplied it to places that considered necessary.

2021 ESG Development & Achievement



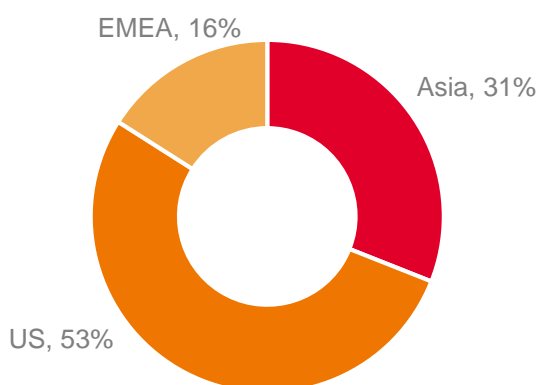
Green Bond Key Figures

On 19 January 2021, SK hynix issued a USD 2.5bn triple-tranche Senior Unsecured bond, consisting of a USD 500m 3-year tranche, a USD 1bn 5-year tranche and a **USD 1bn 10-year Green tranche**. The net proceeds from the 10-year Green Bond will be allocated to eligible projects in accordance with the **SK hynix's Green Financing Framework**.

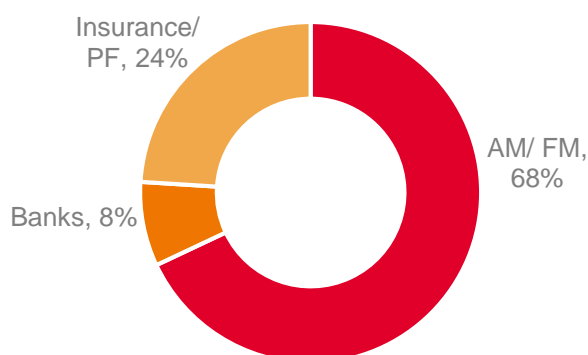
SK hynix USD 1bn 10-year Senior Unsecured Green Bond was awarded as 'Best Green Bond-Corporate' by Asset Triple A and 'Best of Northeast Asia Deal' by FinanceAsia.

Issuer	SK hynix Inc. ("SK hynix")
Issue type	Senior Unsecured, 144A/ RegS, Green Bond
Issue Rating	Baa2 / BBB- (Moody's / S&P)
Issue Date	19 January 2021
Amount Issued	USD 1 billion
Tenor	10-year
Coupon	2.375%
ISIN	144A: US78392BAC19 RegS: USY8085FBD16

**Green Bond Allocation
Distribution by Geography**



**Green Bond Allocation
Distribution by Investor Type**



Allocation Reporting

Total Allocation¹ : KRW 590,141,873,736 (Equiv. USD 496,384,727)

Refinancing Ratio² : 82%

Project Description	City ³	Amount Allocated (KRW million)			
		2018	2019	2020	2021 (1Q ~ 3Q)
Sustainable Water and Wastewater Management					
Regional municipal water project 2nd phase	IC	909	17,273	36,531	22,524
Establishment of wastewater treatment plants and systems	IC	55,745	79,152	96,729	54,323
Improvement of trickling filter for wastewater reduction	IC, CJ	-	3,830	3,208	478
Construction of cooling tower drainage reuse system	IC	-	-	19,821	3,239
Expansion of sewage treatment plant	IC	-	883	-	-
Installation of wastewater reuse system and recycled water supply pipe	IC	-	25,704	-	-
Installation of temporary/ emergency storage for wastewater	IC	-	13,200	21,757	133
Energy Efficiency					
Installation of LED lighting for energy saving	IC, CJ	-	1,862	292	-
Investment in energy savings for manufacturing facilities to improve low power efficiency	IC, CJ	-	-	3,101	1,019
Adoption of Heat Pump System for energy saving	CJ	-	1,114	-	-
Terrestrial and Aquatic Biodiversity Conservation					
Icheon Eco Park Construction	IC	-	-	190	382
Pollution Prevention and Control					
Investment in Equipment for Environmental Analysis Center	IC	-	-	-	350
Installation of automatic water quality measurement equipment	IC	-	876	-	-
Installation of Telemonitoring system (TMS) in response to Special act on the improvement of air quality in metropolitan area	CJ	-	-	-	206
Establishment of nitrogen oxide (NOx) reduction infrastructure	IC, CJ	-	14,377	26,779	18,606
Improvement of waste heat recovery and temperature reduction system	IC	-	8,411	54,163	2,977
Allocation		56,654	166,682	262,571	104,235

Notes:

1) KRW/ USD = 1188.88 (Source: WSJ, end of Dec 31, 2021)

2) Refinancing Ratio = Allocation from 2018-2020 / Allocation from 2018-2021.3Q

3) IC = Icheon; CJ = Cheongju

Impact Reporting^{1,2}

Sustainable Water and Wastewater Management³

Indicator	2018	2019	2020	2021		
				1Q	2Q	3Q
Water Reuse (1,000m ³)	18,644	21,631	26,932	7,054	8,239	8,436
Water Reuse Rate (%)	27	28	32	33	37	37
Water Consumption per Revenue (m ³ / 10 billion won)	2,899	4,250	3,267	3,387	3,342	3,526
Water Withdrawals per Revenue (m ³ / 10 billion won)	15,523	24,401	21,041	20,474	17,069	15,470
Wastewater Discharge (1,000m ³)	51,057	54,390	56,699	14,514	14,169	14,101

Energy Efficiency⁴

Indicator	2018	2019	2020	2021		
				1Q	2Q	3Q
Total Energy Consumption per Revenue (GJ/ 100 million won)	208	316	283	302	243	224

Terrestrial and Aquatic Biodiversity Conservation

Location	Area (m ²)	Impact
Icheon, Korea	20,419	Construction of ecological park to improve environment and secure biodiversity

Icheon Eco Park Construction



Pollution Prevention and Control

Indicator	2018	2019	2020	2021		
				1Q	2Q	3Q
Installation of environment analysis system (unit)	-	-	-	-	2	-
Installation of water quality measurement system (unit)	-	3	1	-	-	-

Notes:

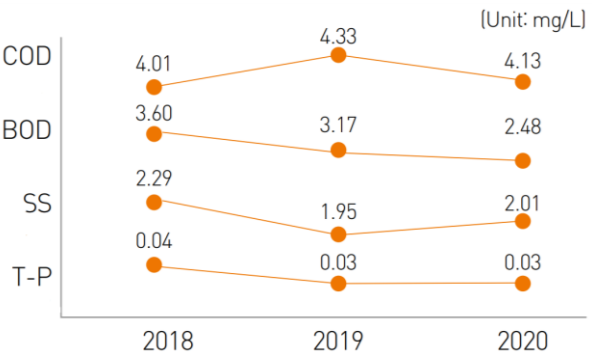
- 1) SK hynix decided not to disclose the impact by each of the allocated projects due to confidentiality
- 2) The indicators were made at the company level
- 3) Given the allocations were mostly for domestic projects, limited the impact indicators to domestic figures
- 4) Total energy consumption includes both overseas and domestic businesses such as Icheon, Cheongju, Bundang, Wusi and Chongqing. Due to confidentiality, the company cannot disclose data based on geography

Case Study: Management of Wastewater Quality

Acquired Wastewater Discharge Standards

SK hynix’s domestic production sites have set and strictly adhere to the specific goals of discharging to the standard of ‘good water’ in accordance with Article 2 of the Enforcement Decree of the Framework Act on Environmental Policy.

The management standards of the four indicators in measuring wastewater discharge quality of good water is to maintain below the standards (COD 5 mg/L, BOD 3 mg/L, SS 25 mg/L, and T-P 0.1 mg/L).



Wastewater Discharge Quality¹ (based on the total quantity, ton)

Classification ²	2018	2019	2020
Chemical Oxygen Demand (COD)	204.8	235.6	234.2
Biological Oxygen Demand (BOD)	183.6	172.5	140.7
Total phosphorus (T-P)	2.0	1.6	1.6
Suspended Solids (SS)	117.1	106.0	113.8

Commitment to Achieve ‘Good Water’ Standards



Environmental analysis center



Aquatic ecosystem monitoring room



Water treatment analysis center



24-hour monitoring room for wastewater treatment



Wastewater treatment facility

Notes:

- 1) Criteria developed according to water quality management criteria of country
- 2) In line with Korean ‘good water’ quality SK hynix established a wastewater discharge quality system

Framework and Second Party Opinion

The SK hynix Green Financing Framework (“Framework”) sets out the criteria, governance and processes under which the Company, intends to issue green bonds, loans, private placements or any other financing instruments.

Use of proceeds



Eligible green Categories

- Sustainable water and wastewater management
- Energy Efficiency
- Pollution prevention and control
- Terrestrial and aquatic biodiversity conservation

Project selection and evaluation



- An internal ESG Working Group which is composed of Finance Management organization, ESG-related departments, and environment-related departments evaluates and selects potential Eligible Projects.
- Looking at the process in more detail, any department related to ESG activities can propose a green investment project. Once a proposal has been made, then the infrastructure team, responsible for project construction, calculates budget and plans construction method and associated timeline.
- The existing ESG Management Committee, which includes the CEO, then reviews the preliminarily selected potential Eligible Projects for final approval.

Management of proceeds



- SK hynix intends to allocate the proceeds to fund Eligible Projects under the Eligible Green Categories, selected in accordance with the use of proceeds criteria and evaluation and selection process
- SK hynix will initially deposit the proceeds from any Green Financing Instrument into the general funding accounts of SK hynix.
- A Green Financing Register will be established to earmark the proceeds of the Green Financing Instruments against assessed and selected Eligible Projects

Reporting



- A Green Financing Report will be made available to investors and lenders within one year from the date of the issuance of the Green Financing Instruments and thereafter once a year until the proceeds have been fully allocated.

Second Party Opinion



V.E is of the opinion that SK hynix’s Framework is aligned with the four core components of the Green Bond Principles 2018 (“GBP”) and the Green Loan Principles 2020 (“GLP”).