

## Energy conservation

The Nippon Chemi-Con Group has the target of 1% and higher per unit of improvement rate a year based on “Carbon Neutrality Action Plan Phase II” set by electrical and electronics industries from FY2021. To realize carbon neutrality by 2050, we will pursue to reduce CO2 emissions from our production by 46% at manufacturing sites in Japan and by an average of 29% at our overseas manufacturing sites (excluding Samyoung Electronics and Qingdao Samyoung Electronics) in FY2030, compared with FY2013. In addition, activities promoting mainly through the Energy Conservation Working Group, which is composed of the Group's energy management managers.

For Scope 3, the capture rate has been increasing every year, hence the CO2 emission.

### 1. Trend in volume of carbon dioxide emissions by Nippon Chemi-Con Group

(Unit: t-CO2)

(FY)		2018	2019	2020	2021	2022	2023
Nippon Chemi-Con Group		527,198	469,062	411,936	439,839	428,126	375,494
Japan		361,675	311,990	259,604	289,251	278,260	238,587
	Parent Company (head office and manufacturing bases)	136,070	116,894	89,343	110,530	95,381	87,395
	Affiliates in Japan (manufacturing bases)	225,605	195,096	170,261	178,721	182,879	151,192
	Overseas Affiliates (manufacturing bases excluding Samyoung Electronics and Qingdao Samyoung Electronics)	165,523	157,072	152,332	150,588	149,866	136,907
Scope1		48,638	39,150	36,462	41,916	43,714	35,625
Scope2		478,560	429,912	375,474	397,923	384,412	339,869
Scope3	1 Goods and services purchased	-	-	-	-	-	350,419
	2 Capital goods	-	-	-	-	-	27,559
	3 Fuel and energy- related activities	-	-	-	-	70,781	61,592
	4 Transportation and distribution (upstream)	529 ※1	434 ※1	367 ※1	467 ※1	419 ※1	23,401
	5 Waste generated from operations	415 ※2	314 ※2	307 ※2	305 ※2	2060	1,818
	6 Business trip	12 ※3	12 ※3	12 ※3	11 ※3	11 ※3	796
	7 Employee Commuting	1,259 ※4	1,196 ※4	1,212 ※4	1,133 ※4	1,100 ※4	2,646
	8 Leased assets (upstream)	Excluded from calculation					
	9 Transportation and distribution (downstream)	Excluded from calculation					
	10 Processing of sold products	Excluded from calculation					
	11 Use of products sold	0	0	0	0	0	0
	12 Disposal of sold products	Excluded from calculation					
	13 Leased assets (downstream)	Excluded from calculation					
	14 Franchise	Excluded from calculation					
	15 Investment	-	-	-	-	-	22,530
Scope 3 Total		2215	1956	1898	1916	74371	490,761

## Calculation Method

Classification			Scope	Calculation Method
Scope1			Nippon Chemi-Con Group <sup>※</sup>	These emissions are calculated by multiplying the amount of fuel purchased for heat use within our Group during the fiscal year by the emission factor for each type of fuel specified in the Law Concerning the Promotion of Measures to Cope with Global Warming (Japan).
Scope2			Nippon Chemi-Con Group <sup>※</sup>	These emissions are calculated by multiplying the amount of electricity purchased by our Group during the fiscal year by the emission factor for each country. For overseas: Emission factors published by the International Energy Agency (IEA) - CO2 Emissions from Fuel Combustion Highlights 2019. For Japan: Emission factors (adjusted emission factor) published by the Federation of Electric Power Companies of Japan.
Scope3	1	Goods and services purchased	Nippon Chemi-Con Group <sup>※</sup>	These emissions are calculated by multiplying an emission factor based on the amount of goods and services purchased during the fiscal year. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	2	Capital goods	Nippon Chemi-Con Group <sup>※</sup>	These emissions are calculated by multiplying the amount of capital goods, such as equipment, purchased during the fiscal year by an emission factor per investment amount. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	3	Fuel and energy-related activities	Nippon Chemi-Con Group <sup>※</sup>	These emissions are calculated by multiplying the amount of fuel and electricity consumed by the company during the fiscal year by the respective emission factor. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	4	Transportation and distribution (upstream)	※1 Before FY2022: Main materials in Japan From FY2023: Nippon Chemi-Con Group <sup>※</sup>	We have reviewed the scope of our calculations in 2023. These emissions are calculated by multiplying the distance and weight of the cargo transported by the emission factor for each mode of transportation. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	5	Waste generated from operations	※2 Before FY2021: Transportation of waste at parent company (head office) and manufacturing bases in Japan From FY2022: Nippon Chemi-Con Group <sup>※</sup>	We have reviewed the scope of our calculations in 2022. These emissions are calculated by multiplying the amount of waste generated by our operations by an emission factor based on the type and disposal method. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	6	Business trip	※3 Before FY2022: Parent company (head office) From FY2023: Nippon Chemi-Con Group <sup>※</sup>	We have reviewed the scope of our calculations in 2023. These emissions are calculated by multiplying an emission factor based on the number of employees. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	7	Employee Commuting	※4 Before FY2022: Parent company (head office) and manufacturing bases in Japan From FY2023: Nippon Chemi-Con Group <sup>※</sup>	We have reviewed the scope of our calculations in 2023. These emissions are calculated by multiplying an emission factor based on the number of employees. Emission factor: "Emissions unit values for accounting of greenhouse gas emissions etc., by organizations throughout the supply chain (Ver3.3)" by the Ministry of the Environment.
	8	Leased assets (upstream)	-	Use of leased equipment is reported as Scope 1 and 2 emissions.
	9	Transportation and distribution (downstream)	-	Not applicable as the Company is an electronic component manufacturer.
	10	Processing of sold products	-	Not applicable as the Company's products are electronic components and it is difficult to calculate due to the variety of processing methods used by customers.
	11	Use of products sold	Nippon Chemi-Con major product lines	Since capacitors are a component used to store electrical energy, CO2 emissions during use are assumed to be zero.
	12	Disposal of sold products	-	Not applicable as the Company is an electronic component manufacturer.
	13	Leased assets (downstream)	-	Not applicable because there is no applicable business activity.
	14	Franchise	-	Not applicable because there are no franchise stores.
	15	Investment	Equity-method affiliate	These emissions are calculated by multiplying the CO2 emissions of our equity-method investments by our ownership percentage.

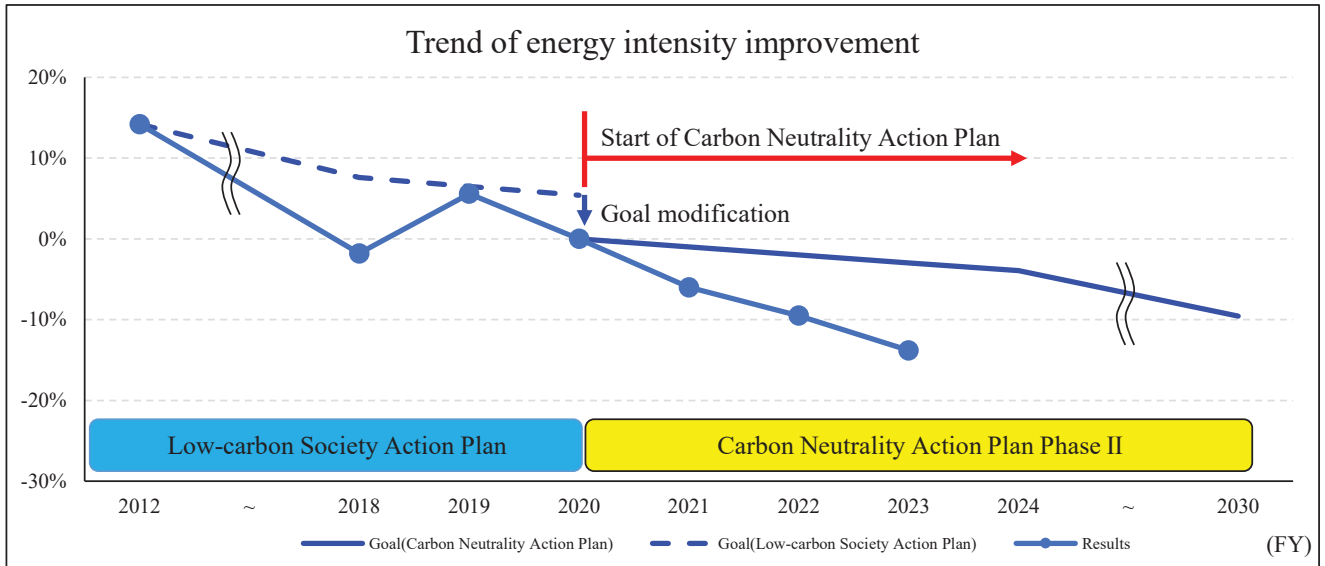
\* Scope: Overseas manufacturing bases (excluding Samyoung Electronics and Qingdao Samyoung Electronics), manufacturing bases

## 2. Trend of energy intensity improvement

Scope: Overseas manufacturing bases (excluding Samyoung Electronics and Qingdao Samyoung Electronics), manufacturing bases in Japan and parent company (head office).

(Unit: %)

(FY)	2012	2018	2019	2020	2021	2022	2023
Rate of based year FY 2020	14.2	-1.8	5.6	0	-6	-9.5	-13.8



## 3. Energy consumption

Scope: Overseas manufacturing bases (excluding Samyoung Electronics and Qingdao Samyoung Electronics), manufacturing bases in Japan and parent company (head office).

(FY)	Unit	2018	2019	2020	2021	2022	2023
Total energy consumption	MWh	1,679,242	1,239,595	1,066,303	1,069,721	1,147,002	1,116,173
	GJ	10,559,803	9,107,587	9,168,384	9,754,314	9,583,293	7,860,954 ※
Total renewable energy use	MWh	3	7	13	18	19	3,367
	GJ	30	70	130	179	189	29,091

※ In accordance with Japan's "Act on Rationalization of Energy Use and Shift to Non-fossil Energy", which will be revised in 2023, we have revised the coefficients used to convert grid electricity consumption to primary energy.

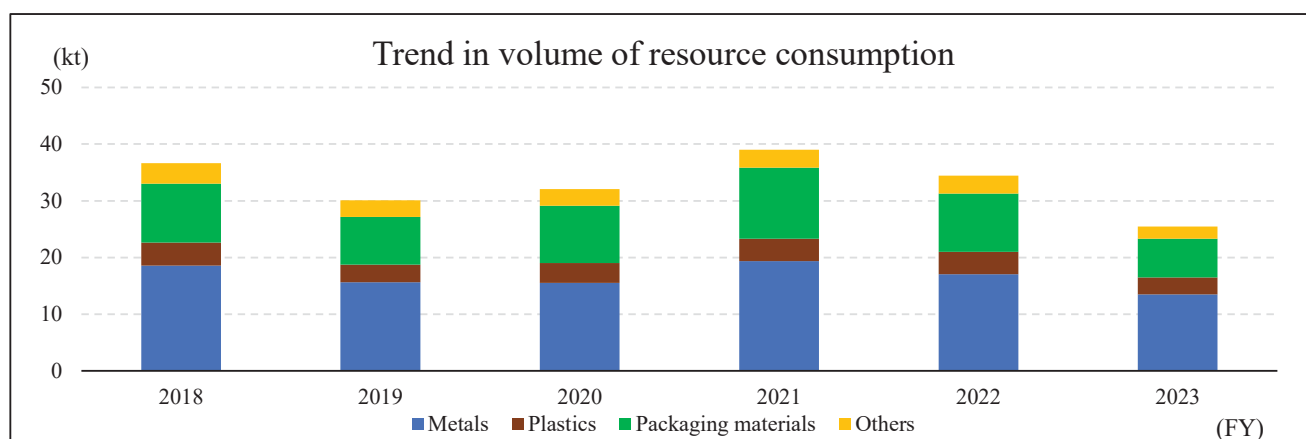
## Resource conservation

In the manufacturing activities of industries, the resources are essential element. Efficient use of such resources will protect global environment and ecology. We encourage the “3R,” recycling, reusing, and reducing activities in order to contribute to the preservation of the environment.

### 1. Trend in volume of resources consumed by Nippon Chemi-Con Group

(Unit: t)

(FY)	2018	2019	2020	2021	2022	2023
Metals	18,554	15,620	15,504	19,375	17,067	13,467
Plastics	4,090	3,147	3,523	3,955	3,911	3,015
Packaging materials	10,371	8,365	10,120	12,544	10,323	6,830
Others	3,597	2,946	2,925	3,159	3,140	2,163
Amount	36,612	30,078	32,072	39,033	34,441	25,474

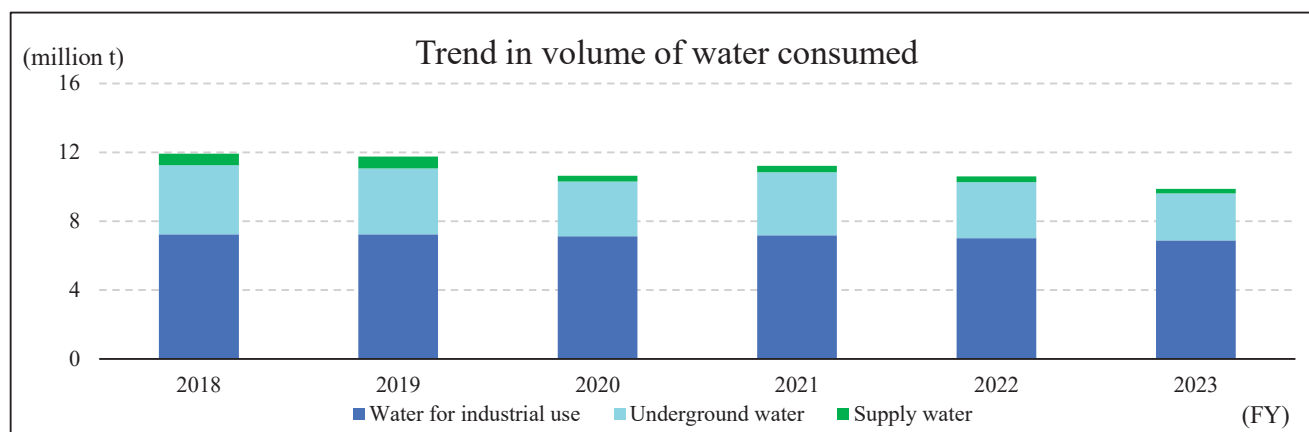


## 2. Trend in volume of water consumed by Nippon Chemi-Con Group.

(Unit: kt)

(FY)		2018	2019	2020	2021	2022	2023
Water consumed	Water for industrial use	7,234	7,238	7,131	7,186	7,022	6,878
	Underground water	4,015	3,831	3,169	3,658	3,249	2,732
	Supply water	674	690	346	368	336	266
	Amount	11,923	11,759	10,647	11,211	10,607	9,876
Water discharge		10,120	9,714	9,105	9,316	8,917	8,321

\* Scope: Manufacturing bases in Japan and overseas (excluding Samyoung Electronics and Qingdao Samyoung Electronics), head office



\* Scope: Overseas manufacturing bases (excluding Samyoung Electronics and Qingdao Samyoung Electronics), manufacturing bases in Japan and parent company (head office).

## [Trend in water consumed volume per unit of production]

(Unit: kt / million JPY )

(FY)	2018	2019	2020	2021	2022	2023
Japan	134	153	145	140	119	133
Overseas	11	14	11	9	8	8

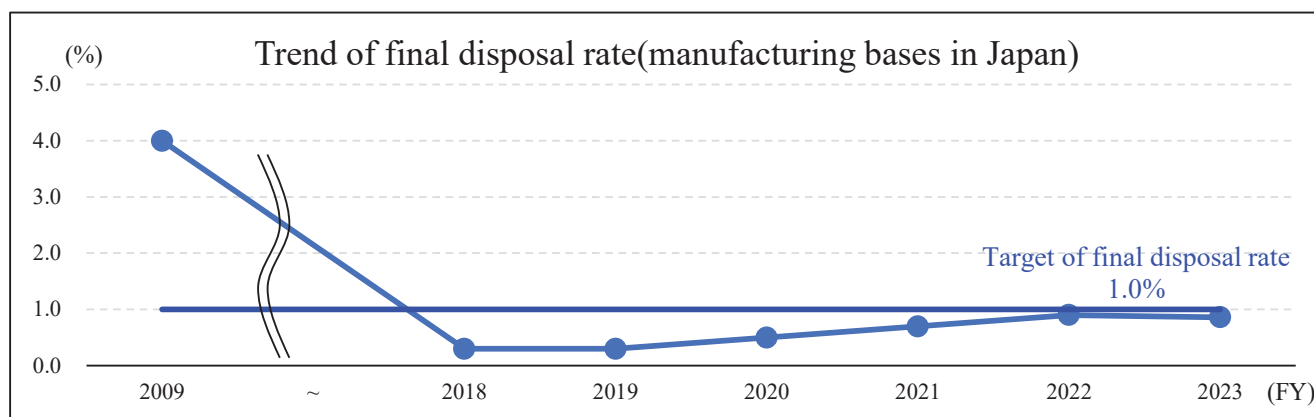
## Waste Reduction

The Nippon Chemi-Con Group has addressed activities for resource recycling and reduction in landfill disposal volumes by reducing the amount of industrial waste generated. We further promote 3R, effective utilization and recycling of resources to reduce wastes including plastic waste and improve the final disposal rate.

### 1. Trend of final disposal rate (manufacturing bases in Japan)

(Unit: %)

(FY)	2018	2019	2020	2021	2022	2023
Final disposal rate	0.3	0.3	0.5	0.7	0.9	0.9



### 2. Trends in waste generated

(Unit: t)

(FY)		2018	2019	2020	2021	2022	2023
Total waste generated	manufacturing bases in Japan	67,417	56,389	54,776	58,309	50,723	45,328
	Overseas Affiliates						
	(manufacturing bases excluding Samyoung Electronics and Qingdao Samyoung Electronics)	6,646	6,580	6,284	6,242	6,409	5,899
	Total	74,063	62,969	61,060	64,551	57,132	51,227
Total waste recycled	manufacturing bases in Japan	66,551	55,556	53,985	57,455	49,887	44,649
	Overseas Affiliates						
	(manufacturing bases excluding Samyoung Electronics and Qingdao Samyoung Electronics)	1,046	658	496	1,070	318	295
	Total	67,597	56,214	54,481	58,525	50,205	44,944
final disposal volume	manufacturing bases in Japan	180	189	271	426	464	391
	Overseas Affiliates						
	(manufacturing bases excluding Samyoung Electronics and Qingdao Samyoung Electronics)	5,600	5,922	5,788	5,172	6,091	5,604
	Total	5,780	6,111	6,059	5,598	6,555	5,995

## Chemical Management

We, Nippon Chemi-Con Group, properly manage chemical substances and every year, we inform the report for below the substances following on Japanese PRTR (Pollutant Release and Transfer Register).

### 1. Outline of the reports for Japanese PRTR in FY2021

(Unit: kg)

Class I designated chemical substances	Cabinet Order Number	Release		Transfer		Amount of release	Amount of transfer
		Released into the atmosphere	Released into public water areas	Transferred to a sewage system	Transferred outside the business site		
Antimony and its compounds	31	0	0	0	2.9	0	2.9
Xylene	80	16	0	0	0	16	0
Cobalt and its compounds	132	0	0	0	0	0	0
Triethylamine	277	0	0.1	1.7	1,370	0.1	1,372
1,2,4-trimethylbenzene	296	24.1	0	0	0	24.1	0
Toluene	300	2,800	0	0	700	2,800	700
Boron compounds	405	273	7,359	29	6,135	7,632	6,164
Manganese and its compounds	412	0	0	0	0	0	0
Methylnaphthalene	438	105	0	0	0	105	0

### 2. Trend of amount of release and transfer concerning Japanese PRTR.

(Unit:t)

(FY)	2018	2019	2020	2021	2022	2023
Transfer	20	16	9	9	10	11
Release	19	18	18	18	17	8

## Environmental Accounting

Our Group is engaged in activities to improve and prevent environmental accidents by investing in environmental measures such as energy conservation, resource conservation, keeping legal compliance, and preventing from environmental risk.

(Unit: million yen)



(FY)	2018	2019	2020	2021	2022	2023
Investment and measures evaluated	49	39	50	68	53	49
Environment-related amount of the above investment	644	356	71	210	325	317
Direct Effect	359	127	44	47	62	50
Indirect Effect	9	12	4	8	4	10



## Nippon Chemi-Con Activity for SDGs (Sustainable Development Goals)



Goal		Implementation content	
Goal 1 (No Poverty)		End poverty in all its forms everywhere	—
Goal 2 (Zero hunger)		End hunger, achieve food security and improved nutrition and promote sustainable agriculture	—
Goal 3 (Good health and well-being)		Ensure healthy lives and promote well-being for all at all ages	Healthy Company (Chemi-Con Report)
Goal 4 (Quality education)		Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	—
Goal 5 (Gender equality)		Achieve gender equality and empower all women and girls	Diversity/Human Resource Development/Employee Safety (Chemi-Con Report) Business Conduct Guidelines(Official site)
Goal 6 (Clean water and sanitation)		Ensure availability and sustainable management of water and sanitation for all	Environment Management (Chemi-Con Report) Environmental Data (This document)
Goal 7 (Affordable and clean energy)		Ensure access to affordable, reliable, sustainable and modern energy for all	Environment Management(Chemi-Con Report) Environmental Data (This document)
Goal 8 (decent work and economic growth)		Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Diversity/Human Resource Development/Employee Safety (Chemi-Con Report)
Goal 9 (industry, innovation and infrastructure)		Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	—
Goal 10 (Reduced inequalities)		Reduce inequality within and among countries	—
Goal 11 (Sustainable cities and communities)		Make cities and human settlements inclusive, safe, resilient and sustainable	—
Goal 12 (Responsible consumption and productions)		Ensure sustainable consumption and production patterns	Environment Management(Chemi-Con Report) Environmental data (This document)
Goal 13 (Climate action)		Take urgent action to combat climate change and its impacts	Environment Management(Chemi-Con Report) Environmental data (This document)
Goal 14 (Life below water)		Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Environment Management(Chemi-Con Report) Environment Volunteer Activities (Chemi-Con Report)
Goal 15 (Life on land)		Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Environment management (Chemi-Con Report) Business Conduct Guidelines(Official site) Environmental data (This document)

Goal		Implementation content
Goal 16 (Peace, justice and strong institutions)		Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels  Business Conduct Guidelines, responsible minerals procurement, and Participation in the UN Global Compact. (Official site)
Goal 17 (Partnership for the goals)		Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development  Participation in the UN Global Compact (Official site)