

# Environmental Data

Materiality	Classification	Sources	Scope	Unit	FY2019	FY2020	FY2021	FY2022
Carbon Neutrality	Energies	Electricity	Global total	thousand kWh	736,508	533,095	503,399	405,636
			Japan		311,456	127,521	93,177	80,972
			Outside Japan		425,052	405,573	410,221	324,664
		CO <sub>2</sub> free electricity	Global total	thousand kWh	82,549	201,858	265,242	424,719
			Japan		74,805	194,051	226,690	289,010
			Outside Japan		7,744	7,807	38,552	135,709
		Natural gas & City gas	Global total	thousand m <sup>3</sup>	72,075	71,600	68,084	59,718
			Japan		32,014	31,498	31,153	22,696
			Outside Japan		40,061	40,101	36,930	37,022
		Coal	Global total	t	67,707	57,968	60,203	55,502
			Japan		0	0	0	0
			Outside Japan		67,707	57,968	60,203	55,502
		Steam	Global total	t	363,460	343,067	355,317	345,182
			Japan		158,207	152,076	152,010	139,282
			Outside Japan		205,253	190,991	203,307	205,900
		LNG	Global total	t	13,337	14,104	16,142	18,735
			Japan		13,055	13,823	15,729	18,735
			Outside Japan		282	281	413	0
		A HFO	Global total	kL	9,516	7,945	5,025	2,762
			Japan		9,516	7,945	5,025	2,762
			Outside Japan		0	0	0	0
		LPG	Global total	t	6,046	5,870	5,990	5,523
			Japan		5,776	5,596	5,664	5,473
			Outside Japan		270	274	327	50
		Diesel	Global total	kL	543	436	452	554
			Japan		69	58	20	18
			Outside Japan		474	378	432	536
Kerosene	Global total	kL	145	130	133	139		
	Japan		145	130	133	139		
	Outside Japan		0	0	0	0		
Gasoline	Global total	kL	50	115	48	52		
	Japan		50	115	48	52		
	Outside Japan		0	0	0	0		
Steam (non industrial)	Global total	GJ	1,033	1,084	1,198	1,397		
	Japan		1,033	1,084	1,198	1,397		
	Outside Japan		0	0	0	0		
Hot water	Global total	GJ	2,408	2,567	1,371	1,461		
	Japan		163	173	138	162		
	Outside Japan		2,245	2,393	1,233	1,299		
Cold water	Global total	GJ	11,400	11,774	3,897	4,087		
	Japan		11,400	11,774	3,897	4,087		
	Outside Japan		0	0	0	0		

					Material Issues							
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Materiality	Classification	Sources	Scope	Unit	FY2019	FY2020	FY2021	FY2022	
Carbon Neutrality	Renewable Energies	Solar power	Global total	thousand kWh	1,674	3,869	6,727	15,152	
			Japan		356	1,409	4,069	4,417	
			Outside Japan		1,318	2,459	2,658	10,735	
		Solar water heater	Global total	GJ	222	222	0	0	
			Japan		0	0	0	0	
			Outside Japan		222	222	0	0	
		Biomass power	Global total	thousand t	1	7	13	17	
			Japan		0	0	0	0	
			Outside Japan		1	7	13	17	
		CO <sub>2</sub>	CO <sub>2</sub> emissions	Global total	thousand t-CO <sub>2</sub>	821	706	683	576
	Japan			282,243		207,281	188,999	164,784	
	Outside Japan			538,525		498,754	494,704	411,032	
	CO <sub>2</sub> emissions per sales		Global total	t/¥ million	0.59	0.50	0.46	0.33	
	GHG emissions throughout the value chain			thousand t-CO <sub>2</sub>	1,320	1,118	1,030	1,110	
	Scope1				138,583	125,038	130,391	112,229	
	Scope2				92,444	36,647	9,731	3,215	
	Scope3 breakdown		Category 1		730,219	635,542	592,537	648,624	
			Category 2		85,119	52,402	38,763	85,592	
			Category 3		29,633	45,579	34,167	30,272	
			Category 4		79,981	70,621	70,519	72,548	
			Category 5		11,851	12,836	13,535	10,966	
			Category 6	Japan*1	t-CO <sub>2</sub>	10,882	6,030	5,413	8,285
Category 7				5,888	5,773	5,917	5,679		
Category 8				8,463	6,356	7,258	7,294		
Category 9			22,484	20,407	20,736	22,480			
Category 10					N/A				
Category 11			81,034	80,209	79,452	80,051			
Category 12			23,681	20,751	21,163	22,879			
Category 13				N/A					
Category 14				N/A					
Category 15				N/A					
Water Neutrality	Water	Water usage	Global total	thousand m <sup>3</sup>	18,756	17,732	17,680	18,488	
			Japan		12,274	11,605	10,909	11,629	
			Outside Japan		6,482	6,127	6,772	6,859	
		Water use efficiency	Global total	t/¥ million	13.4	12.5	11.8	10.6	
			Japan				9,654	10,399	
			Outside Japan				123	96	
		Water intake by water source	Japan	River water	thousand m <sup>3</sup>	12,274	11,605	1,131	1,134
				Ground water				3,275	3,264
				Municipal water (including industrial water)				0	0
			Asia, the Middle East, etc.	River water	5,615	5,330	0	0	
				Ground water			2,708	2,755	
				Municipal water (including industrial water)			407	390	
			North and South America	River water	587	525	0	0	
				Ground water			137	201	
				Municipal water (including industrial water)			212	220	
Europe	River water		280	272	2	2			
	Ground water				32	26			

\*1 Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods

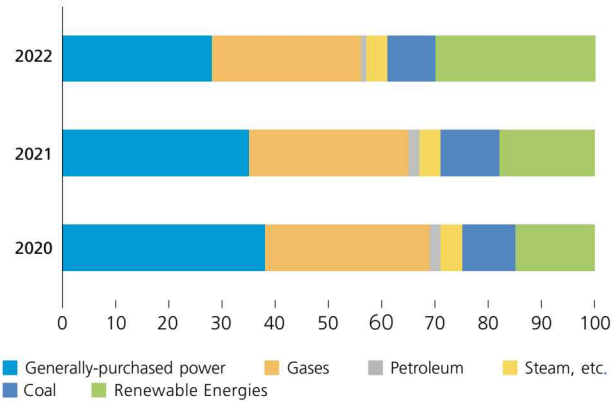
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Materiality	Classification	Sources	Scope	Unit	FY2019	FY2020	FY2021	FY2022						
Water Neutrality	Water	Wastewater by destination	Rivers, lakes and marshes	thousand m <sup>3</sup>	12,345	11,717	11,194	10,560						
			Underground seepage		61	60	4	1						
			Area of ocean		1,267	1,002	1,051	1,118						
			Third-party processing (municipal sewage, etc.)		3,109	2,886	2,873	2,729						
			<b>Total Amount of Wastewater</b>		<b>16,782</b>	<b>15,666</b>	<b>15,122</b>	<b>14,407</b>						
Circular Economy	Material	Material	Japan <sup>*1</sup>	t	125,289	114,847	114,771	119,541						
	Packaging material	Plastics	PET	Japan <sup>*1</sup>	t	14,376	11,963	12,028	14,416					
			Others			17,783	16,028	14,998	15,675					
			Paper and cardboard			36,388	33,149	32,481	36,173					
			Others			95,658	89,826	88,949	92,812					
	Waste			Global total	t	100,126	91,838	93,895	92,943					
						Japan	43,083	35,723	35,246	30,820				
						Outside Japan	57,043	56,115	58,649	62,123				
						Total amount of waste	Global total	Japan	t	71,711	64,487	65,314	64,891	
										Outside Japan	38,003	31,110	30,352	27,279
						Recycled materials	Global Breakdown	Material Recycling	t	33,708	33,377	34,962	37,612	
										Thermal Recycle	42,609	39,703	37,723	37,487
										Composting and feed	11,945	9,528	11,911	12,639
										<b>Total (Including valuables)</b>	17,157	15,256	15,680	14,765
						Final disposal	Global total	Japan	t	4,703	4,378	5,532	3,370	
										Outside Japan	3,818	3,606	3,983	2,529
										Global total	885	772	1,549	841
						(landfill)	Global total	Japan	t	13,760	12,594	13,695	14,660	
										Outside Japan	115	99	112	207
										Global total	13,645	12,495	13,583	14,453
						Bio-processing and chemical processing	Global total	Japan	t	10,379	9,355	9,355	10,022	
										Outside Japan	909	799	799	804
										Global total	9,470	8,556	8,556	9,218
						Total amount of waste	Global total	Japan	t	9,708	9,884	10,831	10,543	
										Outside Japan	3,770	3,836	4,513	3,279
										Global total	5,938	6,048	6,318	7,264
Recycled materials						Global total	Japan	t	5,074	4,549	5,450	6,365		
									Outside Japan	1,516	1,653	2,174	1,932	
									Global total	3,558	2,897	3,276	4,433	
Global Breakdown						Material Recycling	t	2,633	1,832	2,257	3,155			
								Thermal Recycle	2,441	1,556	3,193	3,210		
								Composting and feed	0	0	0	0		
	<b>Hazardous<sup>*2</sup></b>	2,389	2,443	2,694	1,661									
Final disposal	Global total	Japan	t	2,124	2,047	2,235	1,201							
				Outside Japan	265	396	459	460						
				Global total	1,520	1,914	2,265	2,003						
(landfill)	Global total	Japan	t	9	1	1	2							
				Outside Japan	1,511	1,913	2,264	2,001						
				Global total	726	978	421	514						
Bio-processing and chemical processing	Global total	Japan	t	122	135	102	144							
				Outside Japan	604	843	319	370						
				Global total	604	843	319	370						

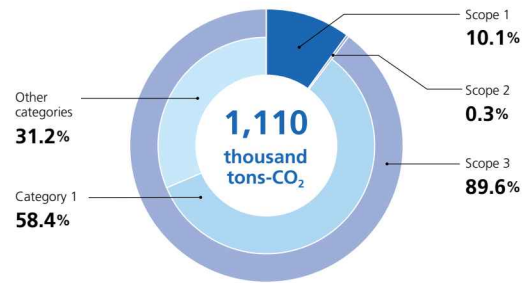
\*1 Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods \*2 Specially controlled industrial waste by Japanese regulations; in other countries, the classification is based on the respective national standards

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**Global energy composition (converted to heat quantity: GJ/year)**

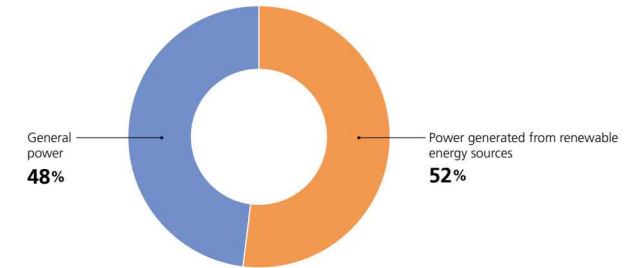


**GHG Emissions throughout the Value Chain**

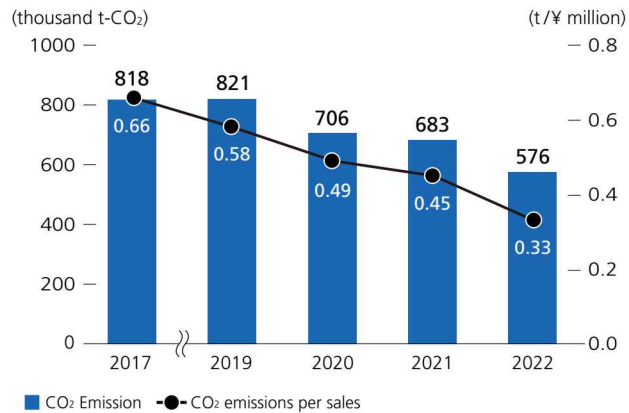


Scope: Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods

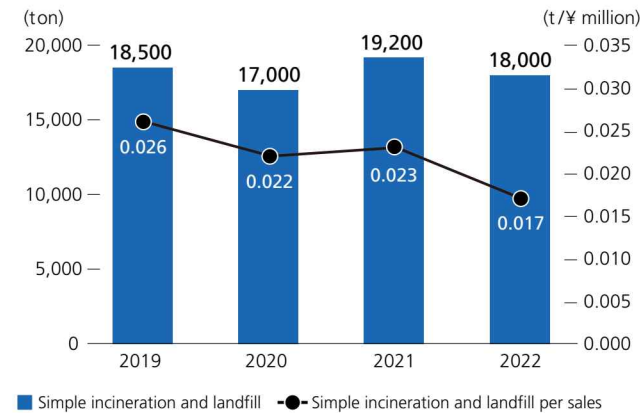
**Global renewable energy ratio**



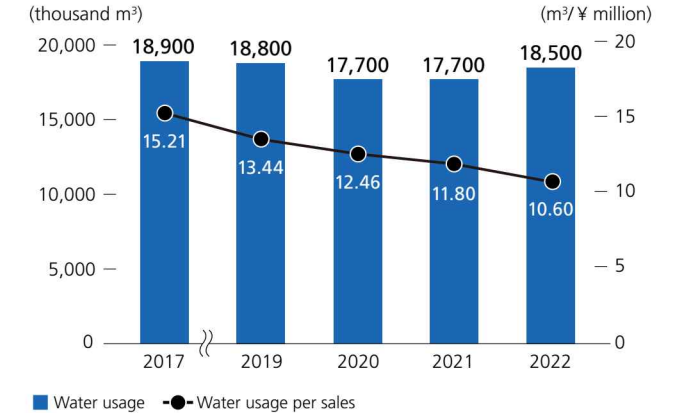
**CO<sub>2</sub> emissions per sales**



**Simple incineration and landfill per sales**



**Water Usage, Water Usage per Sales**



**Reporting of Violations of Environmental Laws and Regulations**

In FY 2022, the Otsuka group had five violations of environmental laws and regulations (violations due to inadequate reporting and waste water exceeding the standards). We have completed the correction of the violations, and will make efforts to prevent recurrence.