

NSG Group: Environment Data

CO2 emissions

		CY2011	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
CO2 (Kt)	Scope 1	3,875	3,526	3,201	3,136	2,962	2,933	2,855	3,103	2,970	2,817	3,028	2,910
	Scope 2 Location	1,079	1,015	1,032	1,031	937	956	896	1,050	885	728	749	719
	Scope 2 Market	-	-	-	-	-	-	-	891	790	530	622	542
	Scope 3	-	-	-	-	-	-	-	2,513	2,819	2,952	3,556	3,276

(Reference) CO2 emissions in Japan

		CY2018	CY2019	CY2020	CY2021	CY2022
CO2 (Kt)	Scope 1	471	516	423	393	336
	Scope 2 Location	183	179	158	111	105
	Scope 2 Market	183	159	122	142	128
	Scope 3	252	267	345	200	178

Breakdown of CO2 emissions (Scope 3)

category	CY2018	CY2019	CY2020	CY2021	CY2022
1. Purchased Goods & Services	1,055	1,289	1,532	1,939	1,656
2. Capital goods	0	4	4	4	5
3. Fuel & Energy related materials	356	547	472	588	534
4. Upstream transportation & Distribution	0	6	6	6	61
5. Waste generated in Operations	12	10	15	12	33
6. Business Travel	6	7	1	0.4	5
7. Employee Commuting	10	10	2	2	2
8. Upstream leased assets	0	0	0	0	0
9. Downstream transportation & distribution	140	145	119	168	175
10. Processing of sold products	735	600	600	600	600
11. Use of sold products	0	0	0	0	0
12. End of life treatment of sold products	0	0	0	37	35
13. Downstream leased assets	0	0	0	0	0
14. Franchises	0	0	0	0	0
15. Investments	200	200	200	200	170
Other	0	0	0	0	0
Total all 15 categories (Kt)	2,513	2,819	2,952	3,556	3,276

CO2 reduction per unit of production volume

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
CO2 emission (tonne) / equivalent product (tonne)	0.75	0.73	0.74	0.79	0.74	0.73

Air emissions (except CO2)

	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
NOx (Kt)	16	17	17	16	16	16
SOx (Kt)	6	6	6	6	6	6

Energy

	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
Natural gas (TJ)	30,547	32,968	32,016	30,746	34,095	32,379
Heavy fuel oil (TJ)	4,595	4,927	5,764	5,124	4,744	4,748
Electricity (TJ)	7,331	7,478	7,275	6,074	6,760	6,636

Water

	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
Water usage (Mm3)	19.5	17.6	17.4	15.9	16.0	14.8

Operational waste to landfill

	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
Waste glass to landfill	4.5	3.8	3.5	3.9	2.1	3.3
Non-glass waste to landfill	18.6	19.6	18.6	14.5	17.5	18.3
Total (Kt)	23.2	23.4	22.1	18.4	19.6	21.6

Recycling

	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
Recycling (not glass) (Kt)	48.8	52.6	40.5	35.5	34.2	36.0