



Environment and safety

Certified sites		
in percent	2010	2009
Proportion of locations certified to DIN ISO 9001	72	71
Western Europe	90	91
Americas	56	54
Asia & Eastern Europe	68	63
South Pacific & Africa	74	82
Proportion of locations certified to DIN ISO 14001	28	27
Western Europe	46	48
Americas	7	7
Asia & Eastern Europe	33	28
South Pacific & Africa	23	34
Proportion of locations certified to OHSAS 18001 or SCC	22	22
Western Europe	31	31
Americas	4	2
Asia & Eastern Europe	29	19
South Pacific & Africa	25	39

Audits and training				
in percent	2010	2009	2008	2007
Audits				
Proportion of sites in which occupational health and safety audits have been conducted	53.2 [▲]	55.1 [▲]	50.8	N/A
Proportion of sites in which environmental audits have been conducted	47.8 [▲]	48.3 [▲]	46.1	N/A

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Training

Proportion of employees who have taken up HSE ¹ training opportunities	47.2 [▲]	48.8 [▲]	38.8	30.8
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▲ Figure included in the Management Report of The Linde Group's Annual Report 2010

¹ HSE = Health, Safety, Environment

Usage of resources

	2010	2009	2008	2007
Energy consumption in GWh				
Natural gas	25,200 ^{*▲}	23,600 ^{*▲}	23,200 [*]	21,900
Electricity	19,000 ^{*▲}	17,700 ^{*▲}	20,000 [*]	19,900
Fuel oil, thermal energy, refinery and synthesis gases, butane and propane	6,400	5,900	5,700	3,100
Water in million m³				
Total water consumption	43.0 ^{*▲}	38.9 ^{*▲}	41.4 [*]	54.8
Industrial and process water consumption	32.0 [*]	30.9 [*]	33.0 [*]	44.1
Drinking water consumption	11.0 [*]	8.0 [*]	8.4 [*]	10.7
Waste water	8.4	11.4	9.4	8.2

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Materials and packaging consumption in tonnes

Materials	65,700	50,000	57,100	40,800
Packaging materials	6,300	5,800	7,200	7,200

* Within KPMG assurance scope. The assurance report for the reporting year 2010 is available [here](#).

▲ Figure included in the Management Report of The Linde Group's [Annual Report 2010](#)

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Emissions

	2010	2009	2008	2007
CO₂ emissions in million tonnes				
Direct CO ₂ emissions	5.4*▲	4.6*▲	4.5*	4.7
Indirect CO ₂ emissions	9.5*▲	9.0*▲	9.7*	9.7
Total CO ₂ emissions	14.9	13.6	14.2	14.4
Direct greenhouse gas emissions in 1,000 tonnes				
Direct CO ₂ emissions	5,400*▲	4,600*▲	4,500*	4,700
Direct emissions of other Kyoto greenhouse gases in CO ₂ equivalents	400	400	500	500
Total direct greenhouse gas emissions in CO ₂ equivalents	5,800	5,000	5,000	5,200



Transport related greenhouse gas emissions in 1,000 tonnes				
Greenhouse gas emissions from Linde Group transport fleet in CO ₂ equivalents	410	380	430	440
Gist Division	165	140	160	150
Gases Division	245	240	270	290
Greenhouse gas emissions from fleet of transport contractors in CO ₂ equivalents	310	320	330	330
Air emissions in tonnes				
VOCs	182	236	287	330
NH ₃	70	78	348	323
CO	1,747	2,161	2,202	2,341
NOx	717	856	994	812
SOx	620	730	582	427
Water emissions in tonnes				
Chemical oxygen demand (COD)	308	381	237	203
Biochemical oxygen demand (BOD)	75	157	181	147
Nitrates in tonnes	35	37	45	93
Phosphates	3	3	4	11

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Waste and recycling				
	2010	2009	2008	2007
Total waste in tonnes	76,552	72,115	85,789	99,145
Hazardous and non-hazardous waste in percent				
Proportion of non-hazardous waste	61	52	63	52
Proportion of hazardous waste	39	48	37	48
Disposal method in percent				
Recycled materials	43	28	47	54
Landfill waste	22	35	30	32
Incineration waste	28	28	15	14
Other disposal methods	7	9	7	N/A

Transport				
	2010	2009	2008	2007
Transport incidents				
Number of serious traffic incidents involving trucks with 1 million km driven	0,08	0,08	0,11	0,11
Transport distance driven in million km				
Cylinder transport fleet (Gases Division)	194	179	214	233
Tank transport fleet (Gases Division)	383	357	372	385
Gist Division fleet	187	153	172	158

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Plant specific indicators

	2010	2009	2008	2007
Air separation plants				
Electricity consumption in GWh	16,800 ^{*▲}	16,000 ^{*▲}	17,500 [*]	16,900
Indirect CO ₂ emissions in million tonnes	8.3 ^{*▲}	8.0 ^{*▲}	8.4 [*]	8.0
Water consumption in million m ³	27.5 ^{*▲}	24.3 ^{*▲}	26.8 [*]	33.8
HyCo plants				
Natural gas consumption in GWh	21,200 ^{*▲}	21,300 ^{*▲}	20,700 [*]	21,200
Direct CO ₂ emissions in million tonnes	4.3 ^{*▲}	3.9 ^{*▲}	3.4 [*]	3.3

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Divisions

Gases Division	2010	2009	2008	2007
Natural gas consumption in GWh	25,200	23,500	23,000	21,900
Electricity consumption in GWh	18,900	17,600	19,900	19,800
Total water consumption (industrial, process and drinking water) in million m ³	43	37.7	49.0	54.6
Industrial and process water in million m ³	32	30.9	40.8	44.0
Drinking water in million m ³	11.3	7.8	8.2	10.6
Waste in tonnes	66,206	65,107	68,900	78,840
Proportion of non-hazardous waste in percent	43	47	55	49
Proportion of hazardous waste in percent	57	53	45	51

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Engineering Division	2010	2009	2008	2007
Natural gas consumption in GWh	40	36	40	32
Electricity consumption in GWh	45	45	56	47
Total water consumption (industrial, process and drinking water) in million m ³	0.126	0.125	0.146	0.077
Industrial and process water in million m ³	0.043	0.034	0.103	0.042
Drinking water in million m ³	0.083	0.091	0.043	0.035
Waste in tonnes	4,776	2,248	12,757	6,564
Proportion of non-hazardous waste in percent	87	95	95	93
Proportion of hazardous waste in percent	13	5	5	7

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