

PERFORMANCE INDICATORS



RENEWABLE ENERGIES	UN	2023	2022	2021	2020
TOTAL INSTALLED CAPACITY					
Renewable installed capacity	%	86	79	80	79
Renewable installed capacity	MW	22 730	20 739	19 617	18 626
Wind	MW	12 432	12 136	11 845	11 155
Hydro	MW	6 864	6 872	7 070	7 069
Mini-hydro	MW	57	57	57	57
Solar	MW	3 377	1 674	645	345
Non-renewable installed capacity	MW	3 819	5 449	4 879	4 898
CCGT	MW	2 886	2 886	2 886	2 886
Coal	MW	916	2 540	1 970	1 970
Cogeneration and waste	MW	17	23	23	42
TOTAL NET GENERATION¹	GWh	56 863	61 630	60 166	63 677
Generation from renewable sources	%	86	74	76	74
Generation from renewable sources	GWh	48 969	45 329	45 608	47 330
Wind	GWh	31 669	31 772	29 592	28 272
Hydro	GWh	13 947	11 677	15 152	18 656
Mini-hydro	GWh	152	98	131	137
Solar	GWh	3 201	1 782	733	265
Generation from non-renewable sources	GWh	7 895	16 021	14 558	16 347
CCGT	GWh	4 047	9 033	6 435	9 759
Coal	GWh	3 249	6 830	7 569	5 821
Cogeneration, Waste and Heat	GWh	365	437	555	767
Heat	GWh	234	279	382	556
Capacity under construction	MW	3 719	3 552	1 824	2 051
Avoided CO ₂ emissions ²	ktCO ₂	25 841	22 749	23 752	25 167

¹ The total net generation includes steam.

² Emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

CLIMATE CHANGE	UN	2023	2022	2021	2020
HYDROELECTRIC PRODUCTIVITY INDEX					
Portugal	#	0,99	0,63	0,93	0,97
Spain	#	0,87	0,67	0,91	1,03
EMISSIONS					
Specific CO₂ emissions¹					
Global	g/kWh	75	152	164	146
Thermal	g/kWh	555	575	673	567
CO₂ equivalent emissions					
Scope 1	ktCO₂eq	4 276	9 405	9 819	9 304
Stationary combustion	ktCO ₂ eq	4 249	9 381	9 794	9 273
SF6 Emissions	ktCO ₂ eq	11	9	11	17
Company fleet	ktCO ₂ eq	15	15	14	13
Natural gas consumption	ktCO ₂ eq	0	0	0	0
Scope 2 (location-based)^{2,4}	ktCO₂eq	288	469	791	594
Electricity consumption in office buildings	ktCO ₂ eq	2	1	2	1
Electricity losses in distribution	ktCO ₂ eq	262	443	766	568
Renewable plants self-consumption	ktCO ₂ eq	25	25	23	25
Scope 2 (market-based)^{3,4}	ktCO₂eq	262	443	773	574
Electricity consumption in office buildings	ktCO ₂ eq	0	0	0	0
Electricity losses in distribution	ktCO ₂ eq	262	443	766	568
Renewable plants self-consumption	ktCO ₂ eq	0	0	7	6
Scope 3⁵	ktCO₂eq	8 063	9 279	10 304	9 595
Purchased goods and services (C01)	ktCO ₂ eq	602	713	721	1 116
Capital goods (C02)	ktCO ₂ eq	2 618	2 935	2 610	1 878
Fuel and energy related activities (C03)	ktCO ₂ eq	3 761	4 159	5 185	4 131
Upstream transportation and distribution (C04)	ktCO ₂ eq	19	6	66	39
Waste generated in operations (C05)	ktCO ₂ eq	5	10	18	11
Business travels (C06)	ktCO ₂ eq	15	9	3	3
Commuting (C07)	ktCO ₂ eq	11	11	12	11
Use of sold products (C11)	ktCO ₂ eq	1 032	1 437	1 688	2 405
SF6	kg	470	389	459	724
Portugal	kg	261	220	240	206
Spain	kg	130	62	53	298
South America	kg	79	104	166	217
North America	kg	0	0	0	0
Rest of the Europe	kg	0	2	0	3
APAC	kg	0	0	0	0

¹ The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plant in Spain. Includes only stationary emissions.

² Based on global emission factors of each geography.

³ Based in the suppliers' emission factors.

⁴ Calculation methodology of Scope 2 was revised to avoid emissions duplication with scope 1.

⁵ Methodological review conducted in 2021.

DECARBONIZING THE WORLD	UN	2023	2022	2021	2020
NEW ENERGY SERVICES					
Energy efficiency services revenues	000€	571162	491013	261415	244 573
SUSTAINABLE MOBILITY					
Fleet electrification	%	29,3	14,6	13,2	11,0
Fleet electric vehicles	#	1311	516	501	393
Electric charging points	#	8 510	6 010	3 804	1 811
Customers with electric mobility solutions	#	107	76 455	43 500	18 747
ENERGY EFFICIENCY					
Internal Energy Efficiency					
Thermal efficiency	%	43,0	46,7	45,9	45,5
Coal plants	%	30,2	34,8	34,1	34,5
Natural gas combined cycle plant	%	51,0	54,2	53,9	54,4
Energy intensity	MJ/€	4,6	7,0	9,2	11,4
Electricity distribution grid losses					
Technical losses	%	5,4	5,3	5,4	5,7
Total losses	%	7,8	8,2	8,2	9,3
Electricity transmission grid losses					
	%	0,8	0,8	1,2	1,0
Service Quality					
SAIDI¹ (Distribution network)	h	2,89	2,66	2,73	2,97
SAIDI¹ (Transmission network)	h	0,0	0,0	0,0	0,0
External Energy Efficiency					
Savings in energy efficiency services ²	TWh	6,1	5,6	5,1	3,6
CO ₂ avoided emissions in the final customer ²	ktCO ₂	12 967	11 901	8 950	1 413
Energy consumed outside the organization ³	TJ	267 262	262 414	244 462	350 433

¹ System Average Interruption Duration Index

² Reviewed and harmonized methodology for all geographies, applied since 2015. Excludes Consumption Efficiency Promotion Plan (PPEC) projects. The 2017 values have been revised for consistency with the harmonised savings calculation method.

³ Consider only the category "Use of sold products" of GHG Protocol Corporate Value Chain (Scope 3).

n.a. - not applicable; N/A - not available

CARING FOR OUR PLANET	UN	2023	2022	2021	2020
ISO 14001 CERTIFICATION					
ISO 14001 certification ¹	%	89	87	90	94
TOTAL ENERGY CONSUMPTION					
Renewable consumption	GWh	1 946	1 743	1 556	1 533
Non-Renewable consumption	GWh	18 769	38 182	36 876	37 874
PREVENTION OF POLLUTION					
Total NO _x emissions	kt	2,5	4,8	8,9	6,2
Portugal	kt	0,3	0,7	0,6	1,7
Spain	kt	2,2	4,1	3,7	3,0
Brazil	kt	0,0	0,0	4,7	1,5
Total SO ₂ emissions	kt	1,0	2,3	12,1	8,2
Portugal	kt	0,0	0,0	0,0	0,8
Spain	kt	1,0	2,3	1,6	1,5
Brazil	kt	0,0	0,0	10,5	6,0
Total particulate matter emissions	kt	0,1	0,2	1,3	0,9
Portugal	kt	0,0	0,0	0,01	0,03
Spain	kt	0,1	0,2	0,15	0,08
Brazil	kt	0,0	0,0	1,10	0,81
WASTE MATERIALS					
Waste	t	238 591	335 155	173 769	174 594
Hazard waste	t	6 921	5 019	6 728	5 810
Non-hazard waste	t	231 670	330 137	167 042	168 784
Recovered waste	t	229 142	314 371	136 025	150 406
Hazardous waste	t	4 972	3 842	4 334	3 564
Recycled waste	t	2 636	3 002	2 099	1 443
On site	t	0	0	0	n.d.
Off site	t	2 636	3 002	2 099	n.d.
Other	t	2 336	840	2 235	2 122
On site	t	0	0	17	n.d.
Off site	t	2 336	840	2 218	n.d.
Non-hazardous	t	224 170	310 529	131 690	146 841
Recycled waste	t	108 404	196 790	34 147	113 965
On site	t	0	0	0	n.d.
Off site	t	108 404	196 790	34 147	n.d.
Other	t	115 765	113 694	97 543	32 876
On site	t	1163	0	10	n.d.
Off site	t	114 602	113 694	97 533	n.d.
Non-recovered waste	t	9 449	20 786	37 744	24 188
Hazardous waste	t	1 949	1 177	2 393	2 245
Landfilling	t	147	172	562	398
On site	t	0	0	0	n.d.
Off site	t	147	172	562	n.d.
Other disposal operations	t	1 802	1 004	1 831	1 848
On site	t	0	0	0	n.d.
Off site	t	1 802	1 004	1 831	n.d.
Incineration	t	0	1	n.d.	n.d.
On site	t	0	0	n.d.	n.d.
Off site	t	0	1	n.d.	n.d.
Non-hazardous	t	7 500	19 608	35 351	21 943
Landfilling	t	6 532	18 537	33 682	21 231
On site	t	2 916	10 618	28 843	n.d.
Off site	t	3 617	7 918	4 839	n.d.
Other disposal operations	t	968	1 071	1 669	711
On site	t	0	0	0	n.d.
Off site	t	968	1 071	1 669	n.d.
Incineration	t	0	0	n.d.	n.d.
On site	t	0	0	n.d.	n.d.
Off site	t	0	0	n.d.	n.d.

Main waste categories					
Fly ash	t	164 575	241 643	184 583	120 556
Slag	t	4 871	22 651	21 325	15 065
Gypsum	t	3 303	25 136	597	6 478
Used oils	t	418	294	898	351
PCB	t	139	135	9	12
Metals	t	8 157	4 333	3 469	3 205
Main categories of recovered coal waste					
	t	169 715	277 729	177 662	123 325
Fly ash	t	162 049	241 495	160 085	102 866
Slag	t	4 363	12 730	16 980	13 980
Gypsum	t	3 303	23 503	597	6 478
By-products	t	27 547	48 478	42 395	134 858
Fly ash	t	0	0	3 071	86 929
Slag	t	0	0	271	2 880
Gypsum	t	27 547	48 478	39 053	45 049
Specific production of waste materials	t/GWh	5	6	4	5
Recovered waste materials	%	27 547	95	83	92
Recovered coal waste materials ²	%	88	97	88	93
NATURAL RESOURCES					
Total water withdrawal	10 ³ xm ²	543 304	675 668	358 480	602 909
Freshwater	10 ³ xm ³	5 659	11 275	14 527	11 944
Salt and estuarine water	10 ³ xm ³	537 645	664 393	343 953	590 965
In water-stressed regions ³					
Pecém	10 ³ xm ³	324	213	9 042	4 260
Castejón	10 ³ xm ³	n.a.	n.a.	n.a.	2 035
Total water discharge	10 ³ xm ²		661 362	343 836	589 375
Discharge into inland water	10 ³ xm ³	1 403	1 215	1 554	1 891
Discharge into estuary water and sea	10 ³ xm ³	536 841	660 147	342 282	587 484
Municipal treatment	10 ³ xm ³	3	2,54	3,52	4,25
In water-stressed regions ³	10 ³ xm ³	164	176	1 065	867
Total water consumption	10 ³ xm ²	5 430	14 797	16 248	14 967
Total freshwater consumption	10 ³ xm ³	4 091	9 964	13 045	10 252
In water-stressed regions ³					
Pecém	10 ³ xm ³	324	213	9 042	4 260
Castejón	10 ³ xm ³	n.a.	n.a.	n.a.	1 594
Specific fresh water consumption	m ³ /GWh	72	162	217	161
Fuels					
Coal	TJ	27 192	62 435	71 109	55 515
Natural gas	TJ	29 718	61 961	45 334	67 447
Diesel	TJ	116	217	69	127
Fuel oil	TJ	11	20	21	220
Waste gas	TJ	7 837	7 965	11 158	7 046
Chemicals consumption					
Sodium hydroxyde	t	284	464	462	608
Hydrochloric acid	t	422	875	710	1 236
Sodium hypochlorite	t	1 930	1 957	2 094	3 087
Ammonia	t	2 216	8 848	2 368	6 063
Calcareous	t	16 910	42 694	24 327	27 254
Acquired oils	t	84	185	155	140
Environmental fines	000€	63	2	15	0
Networks segment	000€	63	2	6	0
Renewables segment	000€	0	0	9	0

¹ Aggregated certification indicator due to assets with potential environmental impacts.

² The by-products category is accounted for as waste material

³ ≤1,000 mg / L of total dissolved solids.

n.a. - not applicable; N/A - not available

PERFORMANCE INDICATORS BY GEOGRAPHY

2023	UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
ENVIRONMENTAL CERTIFICATION (ISO 14001)								
ISO 14001 Certification ¹	%	89	95	100	89	83	86	27
Installed capacity of certified substations	%	100	100	100	99	n.a.	n.a.	n.a.
EMAS Registration	%	75	98	0	n.a.	n.a.	n.a.	n.a.
TOTAL ENERGY CONSUMPTION								
	TJ	74 901	20 311	53 444	848	218	78	2
PRIMARY ENERGY CONSUMPTION								
	TJ	65 098	12 495	51 799	772	22	8	2
Coal	TJ	27 192	0	26 522	669	0	0	0
Fuel oil	TJ	11	0	11	0	0	0	0
Natural gas	TJ	29 718	12 397	17 317	0	3	0	0
Blast furnace gas	TJ	7 837	0	7 837	0	0	0	0
Coke gas	TJ	0	0	0	0	0	0	0
Diesel oil	TJ	116	2	96	18	0	0	0
Iron and steel industry gas	TJ	0	0	0	0	0	0	0
Fuel for fleet	TJ	224	96	16	84	19	8	2
ENERGY INTENSITY ²								
	MJ/EUR	4,6	2,5	16,9	0,2	0,3	0,1	0,0
THERMAL POWER PLANT EFFICIENCY (capacity based)								
Coal	%	30,2	n.a.	0,3	31,7	n.a.	n.a.	n.a.
CCGT	%	51,0	50,2	52,8	n.a.	n.a.	n.a.	n.a.
ELECTRICITY CONSUMPTION								
Generation self-consumption	MWh	2 601 814	2 150 219	366 757	15 571	50 281	18 986	0
Administrative service	MWh	30 689	20 737	1 940	5 674	1 703	465	170
Distribution grid losses	%	7,8	7,9	4,8	9,2	n.a.	n.a.	n.a.
Transmission grid losses	%	0,8	n.a.	n.a.	0,8	n.a.	n.a.	n.a.
GHG EMISSION								
Direct emissions (scope 1)	ktCO _{2eq}	4 276	699	3 494	80	2	1	0
Stationary combustion ³	ktCO _{2eq}	4 249	686	3 490	73	0	0	0
SF6 Emissions	ktCO _{2eq}	11,04	6,12	3,05	1,87	0,00	0,00	0,00
Company fleet	ktCO _{2eq}	15,32	7,11	1,16	4,94	1,38	0,57	0,16

Natural gas consumption	ktCO _{2eq}	0,16	0,01	0,00	0,00	0,15	0,01	0,00	
Indirect emissions (scope 2) ⁴	ktCO _{2eq}	288	215	5	42	19	7	0	
Electricity consumption in office buildings	ktCO _{2eq}	1,62	0,00	0,00	0,00	1,48	0,06	0,07	
Electricity losses	ktCO _{2eq}	262	215	5	42	0	0	0	
Renewable plants self-consumption	ktCO _{2eq}	24,52	0,00	0,00	0,00	17,23	7,29	0,00	
Other indirect emissions (scope 3)	ktCO _{2eq}	8 062,7	2 434,1	1 275,3	2 722,9	1 292,2	249,4	88,7	
Purchased goods and services (C01)	ktCO _{2eq}	602,1	254,2	217,4	78,9	37,4	9,9	4,3	
Capital Goods (C02)	ktCO _{2eq}	2 617,7	297,5	163,7	598,3	1 245,6	235,4	77,1	
Fuel and energy related activities (C03)	ktCO _{2eq}	3 761,3	1 345,0	379,2	2 037,1	0,0	0,0	0,0	
Upstream transportation and distribution (C04)	ktCO _{2eq}	19,1	1,6	0,6	0,7	7,0	3,3	5,9	
Waste generated in operations (C05)	ktCO _{2eq}	4,9	0,2	3,1	1,4	0,2	0,0	0,0	
Business travels (C06)	ktCO _{2eq}	14,9	4,9	3,5	3,8	1,2	0,4	1,1	
Commuting (C07)	ktCO _{2eq}	10,7	4,0	2,5	2,7	0,9	0,3	0,3	
Use of sold products (C11)	ktCO _{2eq}	1 032,0	526,7	505,3	0,0	0,0	0,0	0,0	
GHG EMISSIONS INTENSITY⁵	kgCO₂/EUR	0,282	0,115	1,106	0,035	0,027	0,012	0,002	
CO₂ AVOIDED EMISSIONS⁶	ktCO₂	25 841	5 015	2 069	3 026	11 516	3 249	965	
TOTAL EMISSIONS									
CO ₂ ³⁷	kt	4 249	686	3 490	73	n.a.	n.a.	n.a.	
NO _x	kt	2	0	2	0	n.a.	n.a.	n.a.	
SO ₂	kt	1	0	1	0	n.a.	n.a.	n.a.	
Particulate matter	kt	0,09	0,00	0,09	0,00	n.a.	n.a.	n.a.	
Mercury	kg	32	0	32	0	n.a.	n.a.	n.a.	
SF6	kg	470	261	130	79	0	0	0	
Volatile Organic Compounds	t	95	23	71	n.a.	n.a.	n.a.	n.a.	
SPECIFIC OVERALL EMISSIONS									
CO ₂ ³⁷	g/kWh	75	51	319	8	n.a.	n.a.	n.a.	
NO _x	g/kWh	0,04	0,02	0,20	0,00	n.a.	n.a.	n.a.	
SO ₂	g/kWh	0,02	0,00	0,10	0,00	n.a.	n.a.	n.a.	
Particulate matter	g/kWh	0	0,0	0,0	0,0	n.a.	n.a.	n.a.	
2023									
		UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
SPECIFIC THERMAL EMISSIONS									
CO ₂ ³⁷	g/kWh	555	419	609	1 211	n.a.	n.a.	n.a.	
NO _x	g/kWh	0,3	0,2	0,4	0,0	n.a.	n.a.	n.a.	
SO ₂	g/kWh	0,1	0,0	0,2	0,0	n.a.	n.a.	n.a.	
Particulate matter	g/kWh	0,01	0,00	0,02	0,00	n.a.	n.a.	n.a.	
TOTAL WATER WITHDRAWAL BY SOURCE									
Ocean ⁸	10 ³ x m ³	533 056	0	533 056	n.a.	n.a.	n.a.	n.a.	
Surface	10 ³ x m ³	8 654	4 588	4 057	9	0	0	0	
Freshwater	10 ³ x m ³	4 065	n.a.	4 057	9	n.a.	n.a.	n.d.	
Other water	10 ³ x m ³	4 588	4 588	n.a.	n.a.	n.a.	n.a.	n.d.	
Water hole ⁹	10 ³ x m ³	107	106	0	2	n.a.	n.a.	n.a.	
Well ⁹	10 ³ x m ³	1	0	0	0	0	1	0	
Municipal water supplies ⁹	10 ³ x m ³	1173	72	727	370	0	1	3	
Other private entity ⁹	10 ³ x m ³	312	312	0	0	0	0	0	
MAIN USE OF WATER									
Cooling water	10 ³ x m ³	541 772	4 615	536 866	291	n.a.	n.a.	n.a.	
Row water	10 ³ x m ³	1 342	379	931	32	n.a.	n.a.	n.a.	
Potable water	10 ³ x m ³	160	69	21	56	10	1	3	
WASTEWATER									
Wastewater from generation with treatment	10 ³ x m ³	705	57	629	19	n.a.	n.a.	n.a.	
Discharge into estuarine water and sea ⁸	10 ³ x m ³	536 841	3 272	533 404	164	n.a.	n.a.	n.a.	
Discharge into inland water ⁹	10 ³ x m ³	1 403	5	1 398	n.a.	n.a.	n.a.	n.a.	
WASTE MATERIALS									
Waste	t	266 138	2 270	136 187	126 621	938	121	0	
Hazard waste	t	238 591	2 271	108 640	126 621	938	121	0	
Hazard waste	t	6 921	1493,6	2 813,2	2 251,9	303,3	59,2	0	
Waste with PCB	t	138,6	22,7	116,0	0,0	0,0	0,0	0,0	
Non-hazard waste	t	231 670	776,9	105 826,6	124 369,3	634,9	61,8	0	
Recovered waste	t	229 142	1924,3	102 659,1	123 891,6	565,1	101,6	0	
Hazardous waste	t	4 972	1258,9	1931,3	1455,6	270,6	55,8	0	
Recycled waste	t	2 636	0,0	1099,2	1405,9	129,3	1,8	0,0	
On site	t	0	0	0	0	0	0	0,0	
Off site	t	2 636	0	1099,2	1405,9	129,3	1,8	0,0	
Other	t	2 336	1258,9	832,3	49,7	141,3	54,0	0,0	
On site	t	0	0,0	0,0	0,0	0,0	0,0	0,0	
Off site	t	2 336	1258,9	832,3	49,7	141,3	54,0	0,0	
Non-hazardous	t	224 170	665,4	100 727,9	122 436,0	294,5	45,8	0,0	
Recycled waste	t	108 404	198,6	84 563,9	233 321,8	285,1	35,0	0,0	
On site	t	0	0,0	0,0	0,0	0,0	0,0	0,0	
Off site	t	108 404	198,6	84 563,9	233 321,8	285,1	34,8	0,0	
Other	t	115 765	466,8	16 164,0	99 114,2	9,4	10,8	0,0	
On site	t	1163	0,0	0,0	0,0	0,0	0,0	0,0	
Off site	t	114 602	466,8	15 001,0	99 114,2	9,4	10,8	0,0	
Non-recovered waste	t	9 449	346,1	5 980,6	2 729,5	373,1	19,4	0,0	
Hazardous waste	t	1 949	234,7	881,9	796,2	32,7	3,4	0,0	
Landfilling	t	147	82,2	29,6	2,9	32,7	0,0	0,0	
On site	t	0	0,0	0,0	0,0	0,0	0,0	0,0	
Off site	t	147	82,2	29,6	2,9	32,7	0,0	0,0	
Other disposal operations	t	1 802	152,5	852,4	793,4	0,0	3,4	0,0	
On site	t	0	0,0	0,0	0,0	0,0	0,0	0,0	
Off site	t	1 802	152,5	852,4	793,4	0,0	3,4	0,0	
Non-hazardous	t	7 500	111,5	5 098,7	1 933,3	340,4	16,0	0,0	

Landfilling	t	6 532	90,4	4 157,7	1933,3	340,4	10,5	0,0
On site	t	2 916	90,4	1447,4	1378,0	0,0	0,0	0,0
Off site	t	3 617	0,0	0,0	0,0	0,0	0,0	0,0
Other disposal operations	t	968	21,1	941,0	0,0	0,0	5,5	0,0
On site	t	0	0,0	0,0	0,0	0,0	0,0	0,0
Off site	t	968	21,1	941,0	0,0	0,0	5,5	0,0
By-products	t	27 547	0	27 547	n.a.	n.a.	n.a.	n.a.
Gypsum	t	27 547	0	27 547	n.a.	n.a.	n.a.	n.a.
Fly ash	t	0	0	n.a.	n.a.	n.a.	n.a.	n.a.
Slag	t	0	0	n.a.	n.a.	n.a.	n.a.	n.a.
Recovered waste materials	%	96	85	96	98	60	84	0
DISTRIBUTION IN PROTECTED AREAS								
High voltage distribution grid in protected areas	km	1582	960	208	414	n.a.	n.a.	n.a.
Overhead	km	1566	944	208	414	n.a.	n.a.	n.a.
Underground	km	16	16	0	0	n.a.	n.a.	n.a.
Medium voltage distribution grid in protected areas	km	17 886	9 417	1795	6 673	n.a.	n.a.	n.a.
Overhead	km	16 673	8 379	1630	6 665	n.a.	n.a.	n.a.
Underground	km	1 212	1038	166	9	n.a.	n.a.	n.a.
Substations in protected areas	#	71	29	28	14	n.a.	n.a.	n.a.
TRANSMISSION IN PROTECTED AREAS								
High voltage transmission grid in protected areas	km	84	n.a.	n.a.	84	n.a.	n.a.	n.a.
Overhead	km	84	n.a.	n.a.	84	n.a.	n.a.	n.a.
Underground	km	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
Substations in protected areas	#	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
FLOODED AREAS BY RESERVOIRS								
	ha	2916	2585	331	0	n.a.	n.a.	n.a.
ENVIRONMENTAL COMPLAINTS								
	#	157	21	38	87	5	6	0
ENVIRONMENTAL AUDITS								
	#	179	38	58	17	29	37	0
Internal environmental audits	#	123	22	40	12	23	26	0
External environmental audits	#	56	16	18	5	6	11	0

¹ Aggregated certification indicator due to assets with potential environmental impacts.

² Primary energy consumption by turnover.

³ The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

⁴ Calculation according with GHG Protocol based location methodology.

⁵ Scope 1 and Scope 2 emissions by turnover.

⁶ CO2 emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

⁷ Includes only stationary combustion emissions.

⁸ Other water: > 1,000 mg/L of total dissolved solids

⁹ Fresh water: ≤1,000 mg/L of total dissolved solids

n.a. - not applicable; N/A - not available

2022	UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
ENVIRONMENTAL CERTIFICATION (ISO 14001)								
ISO 14001 Certification ¹	%	87	98	41	95	96	93	n.d.
Installed capacity of certified substations	%	68	100	0	99	n.a.	n.a.	n.a.
EMAS Registration	%	48	70	0	n.a.	n.a.	n.a.	n.a.
TOTAL ENERGY CONSUMPTION								
	TJ	143 724	44 657	98 556	251	185	76	0
PRIMARY ENERGY CONSUMPTION								
	TJ	132 818	36 284	96 349	169	10	6	0
Coal	TJ	62 435	0	62 359	76	n.a.	n.a.	n.a.
Fuel oil	TJ	20	0	20	n.a.	n.a.	n.a.	n.a.
Natural gas	TJ	61961	36182	25 777	0	2	1	0
Blast furnace gas	TJ	7 965	n.a.	7 965	n.a.	n.a.	n.a.	n.a.
Coke gas	TJ	0	n.a.	0	n.a.	n.a.	n.a.	n.a.
Diesel oil	TJ	217	1	204	13	n.a.	n.a.	n.a.
Iron and steel industry gas	TJ	0	n.a.	0	n.a.	n.a.	n.a.	n.a.
Fuel for fleet	TJ	219	101	24	80	7	5	0
ENERGY INTENSITY²								
	MJ/EUR	7,0	5,1	14,6	0,1	0,2	0,1	0,0
THERMAL POWER PLANT EFFICIENCY (capacity based)								
	%	46,7	53,9	41,1	n.a.	n.a.	n.a.	n.a.
Coal	%	34,8	n.a.	34,8	n.a.	n.a.	n.a.	n.a.
CCGT	%	54,2	53,9	54,7	n.a.	n.a.	n.a.	n.a.
ELECTRICITY CONSUMPTION								
Generation self-consumption	MWh	2 998 126	2 304 172	609 888	17 806	47 126	19 133	0
Administrative service	MWh	33 275	21 837	3 159	6 512	1 654	113	0
Distribution grid losses	%	8,2	8,3	4,8	9,5	n.a.	n.a.	n.a.
Transmission grid losses	%	0,8	n.a.	n.a.	0,8	n.a.	n.a.	n.a.

GHG EMISSION									
Direct emissions (scope 1)	ktCO _{2eq}	9 405,0	2 020,1	7 368,2	15,6	0,6	0,5	0	
Stationary combustion ³	ktCO _{2eq}	9 380,8	2 007,4	7 364,9	8,5	0	0	0	
SF6 Emissions	ktCO _{2eq}	9,14	5,18	1,46	2,45	0	0,05	0	
Company fleet	ktCO _{2eq}	14,9	7,5	1,8	4,6	0,5	0,4	0	
Natural gas consumption	ktCO _{2eq}	0,17	0	0	0,00	0,12	0,05	0	
Indirect emissions (scope 2) ⁴	ktCO _{2eq}	469,2	358,1	0	84,7	18,6	7,9	0	
Electricity consumption in office buildings	ktCO _{2eq}	1,39	0	0	0,0	1,35	0,04	0	
Electricity losses	ktCO _{2eq}	442,8	358,1	0	84,7	0	0	0	
Renewable plants self-consumption	ktCO _{2eq}	25,0	0	0	0,0	17,2	7,8	0	
Other indirect emissions (scope 3)	ktCO _{2eq}	9 279,4	2 907,7	1 924,9	2 957,3	550,9	242,7	695,8	
Purchased goods and services (C01)	ktCO _{2eq}	712,6	302,4	267,6	70,5	52,2	14,3	5,6	
Capital Goods (C02)	ktCO _{2eq}	2 935,1	170,9	203,3	1152,1	496,8	222,2	689,9	
Fuel and energy related activities (C03)	ktCO _{2eq}	4 159,0	1 664,7	765,4	1 728,9	0	0	0	
Upstream transportation and distribution (C04)	ktCO _{2eq}	5,69	0	0	0	0	5,69	0	
Waste generated in operations (C05)	ktCO _{2eq}	9,71	0,15	8,74	0,68	0,12	0	0	
Business travels (C06)	ktCO _{2eq}	9,13	3,13	2,44	2,28	1,01	0,26	0	
Commuting (C07)	ktCO _{2eq}	10,96	3,89	2,79	2,85	0,73	0,30	0	
Use of sold products (C11)	ktCO _{2eq}	1 437,2	762,6	674,6	0	0	0	0	
GHG EMISSIONS INTENSITY ⁵	kgCO ₂ /EUR	0,478	0,270	1,093	0,031	0,025	0,009	0,000	
CO ₂ AVOIDED EMISSIONS ⁶	ktCO ₂	22 749	2 554	2 232	1 808	12 658	3 035	462	
TOTAL EMISSIONS									
CO ₂ ³⁷	kt	9 381	2 007	7 365	8	n.a.	n.a.	n.a.	
NO _x	kt	4,8	0,7	4,1	0,0	n.a.	n.a.	n.a.	
SO ₂	kt	2,3	0,0	2,3	0,0	n.a.	n.a.	n.a.	
Particulate matter	kt	0,23	0,01	0,22	0,00	n.a.	n.a.	n.a.	
Mercury	kg	37	0	37	0	n.a.	n.a.	n.a.	
SF6	kg	389	220	62	104	0	2	0	
Volatile Organic Compounds	t	262	123	139	n.a.	n.a.	n.a.	n.a.	
SPECIFIC OVERALL EMISSIONS									
CO ₂ ³⁷	g/kWh	152	147	458	1	n.a.	n.a.	n.a.	
NO _x	g/kWh	0,1	0,1	0,3	0,0	n.a.	n.a.	n.a.	
SO ₂	g/kWh	0,0	0,0	0,1	0,0	n.a.	n.a.	n.a.	
Particulate matter	g/kWh	0,00	0,00	0,01	0,00	n.a.	n.a.	n.a.	
2022									
		UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
SPECIFIC THERMAL EMISSIONS									
CO ₂ ³⁷	g/kWh	575	28	687	2 238	n.a.	n.a.	n.a.	
NO _x	g/kWh	0,3	0,1	0,4	0,0	n.a.	n.a.	n.a.	
SO ₂	g/kWh	0,1	0,0	0,2	0,0	n.a.	n.a.	n.a.	
Particulate matter	g/kWh	0,01	0,00	0,02	0,00	n.a.	n.a.	n.a.	
TOTAL WATER WITHDRAWAL BY SOURCE									
Ocean ⁸	10 ³ x m ³	652 951	0	652 951	n.a.	n.a.	n.a.	n.a.	
Surface	10 ³ x m ³	20 849	11 442	9 382	25	n.a.	n.a.	n.a.	
Freshwater	10 ³ x m ³	9 407	n.a.	9 382	25	n.a.	n.a.	n.d.	
Other water	10 ³ x m ³	11 442	11 442	n.a.	n.a.	n.a.	n.a.	n.d.	
Water hole ⁹	10 ³ x m ³	166	166	0	0	n.a.	n.a.	n.a.	
Well ⁹	10 ³ x m ³	3	0	0	2	1	1	0	
Municipal water supplies ⁹	10 ³ x m ³	1 555	93	1 198	258	6	0	0	
Other private entity ⁹	10 ³ x m ³	144	106	37	0	0	0	0	
MAIN USE OF WATER									
Cooling water	10 ³ x m ³	673 386	11 460	661 734	192	n.a.	n.a.	n.a.	
Row water	10 ³ x m ³	2 249	445	1 783	21	n.a.	n.a.	n.a.	
Potable water	10 ³ x m ³	175	75	23	69	8	0	0	
WASTEWATER									
Wastewater from generation with treatment	10 ³ x m ³	812	102	692	18	n.a.	n.a.	n.a.	
Discharge into estuarine water and sea ⁸	10 ³ x m ³	660 147	6 662	653 309	176	n.a.	n.a.	n.a.	
Discharge into inland water ⁹	10 ³ x m ³	1 215	3	1 212	n.a.	n.a.	n.a.	n.a.	
WASTE MATERIALS									
Waste	t	383 634	2 048	270 004	110 792	712	79	0	
Hazard waste	t	335 156	2 049	221 525	110 791	712	80	0	
Hazard waste	t	5 019	672	1 282	2 771	255	39	0	
Waste with PCB	t	135,2	9,8	125,4	0,0	0,0	0,0	0,0	
Non-hazardous waste	t	330 137	1 377	220 243	108 020	457	41	0	
Recovered waste	t	314 371	1 717	202 801	109 325	456	71	0	
Hazardous waste	t	3 842	452	839	2 287	226	37	0	
Recycled waste	t	3 002	0	639	2 245	118	0	0	
On site	t	0	0	0	0	0	0	0	
Off site	t	3 002	0	639	2 245	118	0	0	
Other	t	840	452	201	42	108	37	0	
On site	t	0	0	0	0	0	0	0	
Off site	t	840	452	201	42	108	37	0	
Non-hazardous	t	310 529	1 265	201 963	107 038	229	34	0	
Recycled waste	t	196 790	198	177 789	18 577	219	7	0	
On site	t	0	0	0	0	0	0	0	
Off site	t	196 790	198	177 789	18 577	219	7	0	
Other	t	113 694	1 067	24 129	88 461	10	27	0	
On site	t	0	0	0	10	0	0	0	
Off site	t	113 694	1 067	24 129	88 461	10	27	0	

Non-recovered waste	t	20 786	331	18 724	1466	256	8	0
Hazardous waste	t	1177	219	443	484	29	2	0
Landfilling	t	172	32	86	25	29	0	0
On site	t	0	0	0	0	0	0	0
Off site	t	172	32	86	25	29	0	0
Other disposal operations	t	1004	187	357	459	0	2	0
On site	t	0	0	0	0	0	0	0
Off site	t	1004	187	357	459	0	2	0
Non-hazardous	t	19 608	112	18 280	982	227	6	0
Landfilling	t	18 537	0	17 325	982	227	2	0
On site	t	10 618	0	10 618	0	0	0	0
Off site	t	7 918	0	6 707	982	227	2	0
Other disposal operations	t	1071	112	955	0	0	4	0
On site	t	0	0	0	0	0	0	0
Off site	t	1071	112	955	0	0	4	0
By-products	t	48 478	0	48 478	n.a.	n.a.	n.a.	n.a.
Gypsum	t	48 478	0	48 478	n.a.	n.a.	n.a.	n.a.
Fly ash	t	0	0	n.a.	n.a.	n.a.	n.a.	n.a.
Slag	t	0	0	n.a.	n.a.	n.a.	n.a.	n.a.
Recovered waste materials	%	95	84	93	99	64	90	n.a.
DISTRIBUTION IN PROTECTED AREAS								
High voltage distribution grid in protected areas	km	1521	915	209	397	n.a.	n.a.	n.a.
Overhead	km	1505	899	209	397	n.a.	n.a.	n.a.
Underground	km	16	16	0	0	n.a.	n.a.	n.a.
Medium voltage distribution grid in protected areas	km	17 870	9 216	1 777	6 877	n.a.	n.a.	n.a.
Overhead	km	16 713	8 212	1 632	6 869	n.a.	n.a.	n.a.
Underground	km	1 158	1 004	145	9	n.a.	n.a.	n.a.
Substations in protected areas	#	72	29	28	15	n.a.	n.a.	n.a.
TRANSMISSION IN PROTECTED AREAS								
High voltage transmission grid in protected areas	km	84	n.a.	n.a.	84	n.a.	n.a.	n.a.
Overhead	km	84	n.a.	n.a.	84	n.a.	n.a.	n.a.
Underground	km	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
Substations in protected areas	#	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
FLOODED AREAS BY RESERVOIRS	ha	2919	2585	329	5	n.a.	n.a.	n.a.
ENVIRONMENTAL COMPLAINTS	#	222	30	66	100	20	6	0
ENVIRONMENTAL AUDITS	#	151	42	38	23	24	24	0
Internal environmental audits	#	93	14	23	8	32	16	0
External environmental audits	#	58	19	15	10	4	10	0

¹ Aggregated certification indicator due to assets with potential environmental impacts.

² Primary energy consumption by turnover.

³ The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

⁴ Calculation according with GHG Protocol based location methodology.

⁵ Scope 1 and Scope 2 emissions by turnover.

⁶ CO2 emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

⁷ Includes only stationary combustion emissions.

⁸ Other water: >1,000 mg/L of total dissolved solids

⁹ Fresh water: ≤1,000 mg/L of total dissolved solids

n.a. - not applicable; N/A - not available

2021	UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
ENVIRONMENTAL CERTIFICATION (ISO 14001)								
ISO 14001 Certification ¹	%	90	100	66	89	96	74	n.d.
Installed capacity of certified substations	%	77	100	41	95	n.a.	n.a.	n.a.
EMAS Registration	%	60	99	0	n.a.	n.a.	n.a.	n.a.
TOTAL ENERGY CONSUMPTION	TJ	138 347	34 742	65 459	37 886	189	71	0
PRIMARY ENERGY CONSUMPTION	TJ	127 897	27 445	63 944	36 494	9	6	0
Coal	TJ	71109	0	34 727	36 382	n.a.	n.a.	n.a.
Fuel oil	TJ	21	0	21	n.a.	n.a.	n.a.	n.a.
Natural gas	TJ	45 334	27 352	17 977	0	5	0	0
Blast furnace gas	TJ	10 891	n.a.	10 891	n.a.	n.a.	n.a.	n.a.
Coke gas	TJ	0	n.a.	0	n.a.	n.a.	n.a.	n.a.
Diesel oil	TJ	69	1	38	31	n.a.	n.a.	n.a.
Iron and steel industry gas	TJ	266	n.a.	266	n.a.	n.a.	n.a.	n.a.
Fuel for fleet	TJ	198	92	23	73	5	5	0
ENERGY INTENSITY²	MJ/EUR	9,2	5,0	16,5	12,6	0,3	0,2	0,0
THERMAL POWER PLANT EFFICIENCY (capacity based)	%	45,9	53,8	42,0	34,6	n.a.	n.a.	n.a.
Coal	%	34,1	n.a.	33,8	34,6	n.a.	n.a.	n.a.
CCGT	%	53,9	53,8	54,0	n.a.	n.a.	n.a.	n.a.
ELECTRICITY CONSUMPTION								
Generation self-consumption	MWh	2 872 023	2 002 784	418 907	381 551	50 615	18 164	0
Administrative service	MWh	32 975	24 111	1978	5 136	1 626	125	0
Distribution grid losses	%	8,2	8,2	4,7	10,0	n.a.	n.a.	n.a.
Transmission grid losses	%	1,2	n.a.	n.a.	1,2	n.a.	n.a.	n.a.
GHG EMISSION								
Direct emissions (scope 1)	ktCO _{2eq}	9 819	1 532	4 251	4 022	1	0	0
Stationary combustion ³	ktCO _{2eq}	9 794	1 519	4 248	4 013	0	0	0
SF6 Emissions	ktCO _{2eq}	11	5,64	1,24	3,74	0,00	0,00	0,00
Company fleet	ktCO _{2eq}	14	7	2	5	0	0	0
Natural gas consumption	ktCO _{2eq}	0,00	0,00	0,00	0,00	0,22	0,01	0,00
Indirect emissions (scope 2) ⁴	ktCO _{2eq}	791	527	11	228	19	7	0
Electricity consumption in office buildings	ktCO _{2eq}	1,5	0,0	0,0	0,0	1,5	0,0	0,0
Electricity losses	ktCO _{2eq}	766	527	11	228	0	0	0
Renewable plants self-consumption	ktCO _{2eq}	23,3	0,0	0,0	0,0	17,4	6,9	0,0
Other indirect emissions (scope 3)	ktCO _{2eq}	10 400	2 913	1 748	3 942	1 335	403	59
Purchased goods and services (C01)	ktCO _{2eq}	818	343	343	72	43	17	1
Capital Goods (C02)	ktCO _{2eq}	2 610	168	58	652	1 291	382	58
Fuel and energy related activities (C03)	ktCO _{2eq}	5 185	14 26	556	3 203	0	0	0
Upstream transportation and distribution (C04)	ktCO _{2eq}	66	66	0	0	0	0	0
Waste generated in operations (C05)	ktCO _{2eq}	18	1	4	12	0	0	0
Business travels (C06)	ktCO _{2eq}	3	1	1	1	1	0	0
Commuting (C07)	ktCO _{2eq}	12	4	2	3	0	3	0
Use of sold products (C11)	ktCO _{2eq}	1 688	904	784	0	0	0	0

GHG EMISSIONS INTENSITY ⁵	kgCO ₂ /EUR	0,7	0,3	1,1	1,4	0,0	0,0	0,0
CO ₂ AVOIDED EMISSIONS ⁶	ktCO ₂	23 752	4 579	2 354	2 565	11 383	2 853	18
TOTAL EMISSIONS								
CO ₂ ³⁷	kt	9 798	1 519	4 265	4 013	n.a.	n.a.	n.a.
NO _x	kt	8,9	0,6	3,7	4,7	n.a.	n.a.	n.a.
SO ₂	kt	12,1	0,0	1,6	10,5	n.a.	n.a.	n.a.
Particulate matter	kt	1,26	0,01	0,15	1,10	n.a.	n.a.	n.a.
Mercury	kg	42	0	42	0	n.a.	n.a.	n.a.
SF6	kg	459	240	53	166	0	0	0
Volatile Organic Compounds	t	150	81	69	n.a.	n.a.	n.a.	n.a.
SPECIFIC OVERALL EMISSIONS								
CO ₂ ³⁷	g/kWh	164	95	340	372	n.a.	n.a.	n.a.
NO _x	g/kWh	0,1	0,0	0,3	0,4	n.a.	n.a.	n.a.
SO ₂	g/kWh	0,2	0,0	0,1	1,0	n.a.	n.a.	n.a.
Particulate matter	g/kWh	0,02	0,00	0,01	0,10	n.a.	n.a.	n.a.
2021	UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
SPECIFIC THERMAL EMISSIONS								
CO ₂ ³⁷	g/kWh	673	384	627	1175	n.a.	n.a.	n.a.
NO _x	g/kWh	0,6	0,1	0,5	1,4	n.a.	n.a.	n.a.
SO ₂	g/kWh	0,8	0,0	0,2	3,1	n.a.	n.a.	n.a.
Particulate matter	g/kWh	0,09	0,00	0,02	0,32	n.a.	n.a.	n.a.
TOTAL WATER WITHDRAWAL BY SOURCE								
Ocean ⁸	10 ³ x m ³	335 269	0	335 269	n.a.	n.a.	n.a.	n.a.
Surface	10 ³ x m ³	12 936	8 684	4 244	7	n.a.	n.a.	n.a.
Freshwater	10 ³ x m ³	4 252	n.a.	4 244	7	n.a.	n.a.	n.a.
Other water	10 ³ x m ³	8 684	8 684	n.a.	n.a.	n.a.	n.a.	0
Water hole ⁹	10 ³ x m ³	142	142	0	0	n.a.	n.a.	n.a.
Well ⁹	10 ³ x m ³	3	0	0	0	2	1	0
Municipal water supplies ⁹	10 ³ x m ³	9 794	107	605	9 080	1	0	0
Other private entity ⁹	10 ³ x m ³	337	115	222	0	0	0	0
MAIN USE OF WATER								
Cooling water	10 ³ x m ³	355 935	8 696	339 100	8 138	n.a.	n.a.	n.a.
Row water	10 ³ x m ³	2 212	225	1 082	904	n.a.	n.a.	n.a.
Potable water	10 ³ x m ³	156	77	25	46	7	0	0
WASTEWATER								
Wastewater from generation with treatment	10 ³ x m ³	972	110	765	97	n.a.	n.a.	n.a.
Discharge into estuarine water and sea ⁸	10 ³ x m ³	342 282	5 558	335 660	1 065	n.a.	n.a.	n.a.
Discharge into inland water ⁹	10 ³ x m ³	1 554	2	1 552	n.a.	n.a.	n.a.	n.a.
WASTE MATERIALS								
Waste	t	216 164	13 711	65 756	135 180	1 311	207	0
Hazard waste	t	173 770	10 369	26 702	135 180	1 311	206	0
Hazard waste with PCB	t	6 728	2 292	1 456	2 257	637	85	0
Waste with PCB	t	37,2	3,3	33,8	0,0	0,0	0,0	0,0
Non-hazard waste	t	167 042	8 077	25 246	132 923	674	121	0
Recovered waste	t	136 025	7 867	17 324	109 775	886	173	0
Hazardous waste	t	4 334	1 308	702	1 669	576	79	0
Recycled waste	t	2 099	0	72	1 612	409	7	0
On site	t	0	0	0	0	0	0	0
Off site	t	2 508	0	72	1 612	409	7	0
Other	t	2 235	1 308	631	57	168	72	0
On site	t	17	0	17	0	0	0	0
Off site	t	2 218	1 308	614	57	168	72	0
Non-hazardous	t	131 690	6 559	16 622	108 106	309	94	0
Recycled waste	t	34 147	3 170	15 114	15 563	281	20	0
On site	t	0	0	0	0	0	0	0
Off site	t	34 147	3 170	15 114	15 563	281	20	0
Other	t	97 543	3 389	1 508	92 543	29	74	0
On site	t	10	0	0	10	0	0	0
Off site	t	97 533	3 389	1 508	92 533	29	74	0
Non-recovered waste	t	37 744	2 502	9 378	25 405	426	34	0
Hazardous waste	t	2 393	983	754	588	61	7	0
Landfilling	t	562	120	367	14	61	0	0
On site	t	0	0	0	0	0	0	0
Off site	t	562	120	367	14	61	0	0
Other disposal operations	t	1 831	863	387	574	0	7	0
On site	t	0	0	0	0	0	0	0
Off site	t	1 831	863	387	574	0	7	0
Non-hazardous	t	35 351	1 518	8 624	24 817	365	27	0
Landfilling	t	33 682	0	8 489	24 812	365	16	0
On site	t	28 843	0	4 581	24 262	0	0	0
Off site	t	4 839	0	3 908	550	365	16	0
Other disposal operations	t	1 669	1 518	136	4	0	11	0
On site	t	0	0	0	0	0	0	0
Off site	t	1 669	1 518	136	4	0	11	0
By-products	t	42 395	3 342	39 053	n.a.	n.a.	n.a.	n.a.
Gypsum	t	39 053	0	39 053	n.a.	n.a.	n.a.	n.a.
Fly ash	t	3 071	3 071	n.a.	n.a.	n.a.	n.a.	n.a.
Slag	t	271	271	n.a.	n.a.	n.a.	n.a.	n.a.
Recovered waste materials	%	83	82	86	81	68	84	n.a.
DISTRIBUTION IN PROTECTED AREAS								
High voltage distribution grid in protected areas	km	1 493	915	209	369	n.a.	n.a.	n.a.
Overhead	km	1 477	899	209	369	n.a.	n.a.	n.a.
Underground	km	16	16	0	0	n.a.	n.a.	n.a.
Medium voltage distribution grid in protected areas	km	16 858	9 196	1 776	5 886	n.a.	n.a.	n.a.
Overhead	km	15 717	8 208	1 632	5 877	n.a.	n.a.	n.a.
Underground	km	1 141	989	144	9	n.a.	n.a.	n.a.
Substations in protected areas	#	70	29	28	13	n.a.	n.a.	n.a.
TRANSMISSION IN PROTECTED AREAS								
High voltage transmission grid in protected areas	km	127	n.a.	n.a.	127	n.a.	n.a.	n.a.
Overhead	km	127	n.a.	n.a.	127	n.a.	n.a.	n.a.
Underground	km	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
Substations in protected areas	#	0	n.a.	n.a.	0	n.a.	n.a.	n.a.

FLOODED AREAS BY RESERVOIRS	ha	2 919	2 585	329	5	n.a.	n.a.	n.a.
ENVIRONMENTAL COMPLAINTS	#	261	42	34	113	27	45	0
ENVIRONMENTAL AUDITS	#	151	42	38	23	24	24	0
Internal environmental audits	#	81	19	20	11	16	15	0
External environmental audits	#	70	23	18	12	8	9	0

¹ Aggregated certification indicator due to assets with potential environmental impacts.

² Primary energy consumption by turnover.

³ The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

⁴ Calculation according with GHG Protocol based location methodology.

⁵ Scope 1 and Scope 2 emissions by turnover.

⁶ CO2 emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

⁷ Includes only stationary combustion emissions.

⁸ Other water: >1,000 mg/L of total dissolved solids

⁹ Fresh water: ≤1,000 mg/L of total dissolved solids

n.a. - not applicable; N/A - not available

2020	UN	GROUP	PORTUGAL	SPAIN	SOUTH AMERICA	NORTH AMERICA	REST OF EUROPE	APAC
ENVIRONMENTAL CERTIFICATION (ISO 14001)								
ISO 14001 Certification ¹	%	94	98	96	96	89	93	0
Installed capacity of certified substations	%	87	100	100	51	n.a.	n.a.	n.a.
EMAS Registration	%	35	99	0	n.a.	n.a.	n.a.	n.a.
TOTAL ENERGY CONSUMPTION	TJ	156 251	75 574	57 375	21 473	1 512	317	0
PRIMARY ENERGY CONSUMPTION	TJ	130 663	58 507	55 333	16 797	22	4	0
Coal	TJ	55 515	18 768	20 112	16 634	n.a.	n.a.	n.a.
Fuel oil	TJ	220	205	15	n.a.	n.a.	n.a.	n.a.
Natural gas	TJ	67 447	39 322	28 119	2	4	0	0
Blast furnace gas	TJ	6 296	n.a.	6 296	n.a.	n.a.	n.a.	n.a.
Coke gas	TJ	0	n.a.	0	n.a.	n.a.	n.a.	n.a.
Diesel oil	TJ	127	5	30	92	n.a.	n.a.	n.a.
Iron and steel industry gas	TJ	750	n.a.	750	n.a.	n.a.	n.a.	n.a.
Fuel for fleet	TJ	309	207	10	69	18	4	0
ENERGY INTENSITY²	MJ/EUR	11,4	10,6	21,1	7,0	0,3	0,2	0,0
THERMAL POWER PLANT EFFICIENCY (capacity based)	%	45,5	47,6	45,6	35,0	n.a.	n.a.	0,0
Coal	%	33,1	35,6	29,5	35,0	n.a.	n.a.	n.a.
CCGT	%	54,3	54,4	54,1	n.a.	n.a.	n.a.	n.a.
ELECTRICITY CONSUMPTION								
Generation self-consumption	MWh	3 083 416	2 474 165	344 036	211 494	39 555	14 165	0
Administrative service	MWh	27 907	21 385	1665	4 493	328	37	0
Distribution grid losses	%	9,3	9,8	3,8	10,5	n.a.	n.a.	n.a.
Transmission grid losses	%	1,0	n.a.	n.a.	1,0	n.a.	n.a.	n.a.
GHG EMISSION								
Direct emissions (scope 1)	ktCO _{2eq}	9 304	3 977	3 499	1 827	2	0	0
Stationary combustion ³	ktCO _{2eq}	9 273	3 965	3 491	1 817	0	0	0
SF6 Emissions	ktCO _{2eq}	17,01	4,83	6,99	5,10	0,00	0,08	0,00
Company fleet	ktCO _{2eq}	13	7	1	4	1	0	0
Natural gas consumption	ktCO _{2eq}	0,28	0,01	0,00	0,07	0,19	0,01	0,00
Indirect emissions (scope 2) ⁴	ktCO _{2eq}	594	419	0	150	21	6	n.a.
Electricity consumption in office buildings	ktCO _{2eq}	0,9	0,0	0,0	0,0	0,9	0,0	0,0
Electricity losses	ktCO _{2eq}	568	419	0	150	0	0	0
Renewable plants self-consumption	ktCO _{2eq}	25,1	0,0	0,0	0,0	19,6	5,5	0,0
Other indirect emissions (scope 3)	ktCO _{2eq}	11 572	3 279	4 490	3 579	184	40	0
Purchased goods and services (C01)	ktCO _{2eq}	18	6	6	6	0	0	0
Capital Goods (C02)	ktCO _{2eq}	335	36	63	13	183	40	0
Fuel and energy related activities (C03)	ktCO _{2eq}	6 807	2 150	1 793	2 864	0	0	0
Upstream transportation and distribution (C04)	ktCO _{2eq}	933	212	25	696	0	0	0
Business travels (C06)	ktCO _{2eq}	2	0	0	0	1	0	0
Use of sold products (C11)	ktCO _{2eq}	3 478	875	2 603	0	0	0	0
GHG EMISSIONS INTENSITY⁵	kgCO₂/EUR	0,8	0,7	1,3	0,8	0,0	0,0	0,0
CO2 AVOIDED EMISSIONS⁶	ktCO₂	25 167	6 098	2 060	1 844	12 693	2 473	0
TOTAL EMISSIONS								
CO ₂ ^{3,7}	kt	9 224	3 965	3 441	1 817	n.a.	n.a.	0
NO _x	kt	6,2	1,7	3,0	1,5	n.a.	n.a.	0,0
SO ₂	kt	8,2	0,8	1,5	6,0	n.a.	n.a.	0,0
Particulate matter	kt	0,92	0,03	0,08	0,81	n.a.	n.a.	0,00
Mercury	kg	16	3	13	0	n.a.	n.a.	0
SF6	kg	724	206	298	217	0	3	0
Volatile Organic Compounds	t	228	76	152	n.a.	n.a.	n.a.	n.a.
SPECIFIC OVERALL EMISSIONS								
CO ₂ ^{3,7}	g/kWh	146	174	296	221	n.a.	n.a.	0
NO _x	g/kWh	0,1	0,1	0,2	0,2	n.a.	n.a.	0,0
SO ₂	g/kWh	0,1	0,0	0,1	0,7	n.a.	n.a.	0,0
Particulate matter	g/kWh	0,01	0,00	0,01	0,10	n.a.	n.a.	0,00
2020								
SPECIFIC THERMAL EMISSIONS								
CO ₂ ^{3,7}	g/kWh	567	520	523	1 146	n.a.	n.a.	0
NO _x	g/kWh	0,4	0,2	0,4	0,9	n.a.	n.a.	0,0
SO ₂	g/kWh	0,5	0,1	0,2	3,8	n.a.	n.a.	0,0
Particulate matter	g/kWh	0,06	0,00	0,01	0,51	n.a.	n.a.	0,00
TOTAL WATER WITHDRAWAL BY SOURCE								
Ocean ⁸	10 ³ x m ³	580 133	301 897	278 236	n.a.	n.a.	n.a.	0
Surface	10 ³ x m ³	16 152	10 833	5 313	6	n.a.	n.a.	n.a.
Freshwater	10 ³ x m ³	5 319	n.a.	5 313	6	n.a.	n.a.	0
Other water	10 ³ x m ³	10 833	10 833	n.a.	n.a.	n.a.	n.a.	0
Water hole ⁹	10 ³ x m ³	161	161	0	0	n.a.	n.a.	0
Well ⁹	10 ³ x m ³	3	0	0	0	2	1	0
Municipal water supplies ⁹	10 ³ x m ³	5 577	794	474	4 307	2	0	0
Other private entity ⁹	10 ³ x m ³	884	259	624	0	0	0	0
MAIN USE OF WATER								
Cooling water	10 ³ x m ³	599 851	312 739	283 279	3 834	n.a.	n.a.	0
Row water	10 ³ x m ³	2 954	1 128	1 401	426	n.a.	n.a.	0
Potable water	10 ³ x m ³	152	77	16	55	4	0	0

WASTEWATER								
Wastewater from generation with treatment	10 ³ x m ³	1368	371	955	42	n.a.	n.a.	0
Discharge into estuarine water and sea ⁸	10 ³ x m ³	587 484	308 426	278 640	418	n.a.	n.a.	0
Discharge into inland water ⁹	10 ³ x m ³	1891	3	1887	n.a.	n.a.	n.a.	0
WASTE MATERIALS								
Waste	t	309 451	132 191	91 501	84 955	755	49	n.a.
Hazard waste	t	174 594	17 510	71 324	84 955	755	49	n.a.
Waste with PCB	t	5 810	2 756	1 472	1 272	273	36	0
Non-hazard waste	t	12,2	1,6	10,6	0,0	0,0	0,0	n.a.
Recovered waste	t	168 784	14 754	69 852	83 683	482	13	n.a.
Hazardous waste	t	150 406	15 748	68 295	65 804	519	39	n.a.
Recycled waste	t	1 443	2	597	843	0	0	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Other	t	2 122	1 104	320	421	247	29	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Non-hazardous	t	146 841	14 645	67 374	64 540	272	10	n.a.
Recycled waste	t	113 965	13 946	66 877	33 141	n.d.	1	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Other	t	32 876	699	501	31 668	n.d.	9	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Non-recovered waste	t	24 188	1 762	3 028	19 150	236	11	n.a.
Hazardous waste	t	2 245	1 650	554	7	26	7	n.a.
Landfilling	t	398	3	389	5	0	0	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Other disposal operations	t	1 848	1 647	165	0	28	7	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Non-hazardous	t	21 943	112	2 474	19 143	210	4	n.a.
Landfilling	t	21 231	0	1 765	19 465	n.d.	0	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Other disposal operations	t	711	109	600	0	n.d.	3	n.a.
On site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
Off site	t	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.a.
By-products	t	134 858	114 681	20 177	n.a.	n.a.	n.a.	n.a.
Gypsum	t	45 049	24 872	20 177	n.a.	n.a.	n.a.	0
Fly ash	t	86 929	86 929	n.a.	n.a.	n.a.	n.a.	0
Slag	t	2 880	2 880	n.a.	n.a.	n.a.	n.a.	0
Recovered waste materials	%	92	99	97	77	69	79	0
DISTRIBUTION IN PROTECTED AREAS								
High voltage distribution grid in protected areas	km	1 423	912	119	392	n.a.	n.a.	n.a.
Overhead	km	1 407	896	119	392	n.a.	n.a.	0
Underground	km	16	16	0	0	n.a.	n.a.	0
Medium voltage distribution grid in protected areas	km	15 733	9 204	875	5 654	n.a.	n.a.	n.a.
Overhead	km	14 687	8 215	824	5 648	n.a.	n.a.	0
Underground	km	1 046	989	51	6	n.a.	n.a.	0
Substations in protected areas	#	49	19	17	13	n.a.	n.a.	0
TRANSMISSION IN PROTECTED AREAS								
High voltage transmission grid in protected areas	km	127	n.a.	n.a.	127	n.a.	n.a.	0
Overhead	km	127	n.a.	n.a.	127	n.a.	n.a.	n.a.
Underground	km	0	n.a.	n.a.	0	n.a.	n.a.	n.a.
Substations in protected areas	#	0	n.a.	n.a.	0	n.a.	n.a.	0
FLOODED AREAS BY RESERVOIRS								
	ha	5 999	5 666	329	3	n.a.	n.a.	0
ENVIRONMENTAL COMPLAINTS								
	#	323	72	0	144	103	4	0
ENVIRONMENTAL AUDITS								
	#	176	69	37	19	22	29	0
Internal environmental audits	#	111	41	27	11	16	16	0
External environmental audits	#	65	28	10	8	6	13	0

¹ Aggregated certification indicator due to assets with potential environmental impacts.

² Primary energy consumption by turnover.

³ The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

⁴ Calculation according with GHG Protocol based location methodology.

⁵ Scope 1 and Scope 2 emissions by turnover.

⁶ CO2 emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

⁷ Includes only stationary combustion emissions.

⁸ Other water: >1,000 mg/L of total dissolved solids

⁹ Fresh water: ≤1,000 mg/L of total dissolved solids

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