

Intesa Sanpaolo Group 2023

Energy - Emissions conversion factors

		2022	CO ₂ equivalent for GHG						2023	2023	2023
		CO _{2eq}	CO ₂		CH ₄		N ₂ O		CO _{2eq} ^o	NO _x	SO ₂
Area		g/kWh	g/kWh	GWP	g/kWh	GWP	g/kWh	GWP	g/kWh	g/kWh	g/kWh
Electricity (Residual mix)	Italy	461	457	1	0.028	27.9	0.005	273	459	0.177	0.033
	Central Europe	284	487	1	0.129	27.9	0.026	273	497	1.178	0.163
	South Mediterranean and Asia	383	402	1	0.008	27.9	0.001	273	402	0.567	0.351
	South East Europe	467	417	1	0.018	27.9	0.007	273	419	0.447	0.324
	Central Eastern Europe	345	394	1	0.022	27.9	0.007	273	397	0.317	0.198
	Other countries	322	342	1	0.031	27.9	0.004	273	344	0.490	0.235
	Russia	347	326	1	0.009	27.9	0.003	273	327	0.806	1.025
	Area	g/mc	g/mc	GWP	g/mc	GWP	g/mc	GWP	g/mc	g/mc	g/mc
Natural Gas	Italy	1,998	2,006	1	0.086	27.9	0.034	273	2,018	0.966	0.010
	Central Europe	1,937	1,938	1	0.171	27.9	0.003	273	1,943	0.034	0.031
	South Mediterranean and Asia	1,925	1,923	1	0.142	27.9	0.006	273	1,929	0.299	0.118
	South East Europe	1,924	1,920	1	0.152	27.9	0.005	273	1,925	0.300	0.115
	Central Eastern Europe	1,919	1,918	1	0.171	27.9	0.003	273	1,923	0.134	0.088
	Other countries	1,925	1,923	1	0.089	27.9	0.005	273	1,927	4.227	0.243
	Russia	1,893	1,889	1	0.103	27.9	0.003	273	1,893	6.343	0.205
	Area	g/litro	g/litro	GWP	g/litro	GWP	g/litro	GWP	g/litro	g/litro	g/litro
Diesel	Italy	2,673	2,646	1	0.251	27.9	0.072	273	2,673	1.790	1.677
	Central Europe	2,624	2,611	1	0.367	27.9	0.021	273	2,627	0.064	0.069
	South Mediterranean and Asia	2,468	2,450	1	0.266	27.9	0.016	273	2,462	0.484	0.190
	South East Europe	2,452	2,428	1	0.255	27.9	0.014	273	2,439	0.408	0.160
	Central Eastern Europe	2,380	2,364	1	0.351	27.9	0.007	273	2,376	0.006	0.003
	Other countries	2,587	2,574	1	0.187	27.9	0.019	273	2,584	0.950	0.127
	Russia	2,313	2,308	1	0.117	27.9	0.006	273	2,313	0.968	0.095

Utilized factors are based on:

ABI Lab: Linee guida sull'applicazione in banca degli Standards GRI (Global Reporting Initiative) in materia ambientale - Update 2023

UNFCCC: United Nations Framework Convention on Climate Change

IEA: International Energy Agency

IPCC: Intergovernmental Panel on Climate Change

AIB: Association of Issuing Bodies

EPA: United States Environmental Protection Agency

In 2023 for electricity the residual mix was used as recommended by the ABI Energia Guidelines, if not available the national mix was used

$$^{\circ}\text{CO}_{2\text{eq}} = \text{CO}_2 \cdot \text{GWP} + \text{CH}_4 \cdot \text{GWP} + \text{N}_2\text{O} \cdot \text{GWP}$$

GWP-100year IPCC AR6 WGI 2021