

Statistical Factsheet 2022

Provisional values as of June 2023

The Statistical Factsheet is based upon data reported to the ENTSO-E Central Transparency Platform, with the exception of grid statistics. Readers are reminded that the content of the Transparency Platform predominantly consists of operational data, which in some instances may be less suitable for statistical purposes.



ENTSO-E in figures – Electricity system data of member TSOs in 2022

Area / Country	Aggregated generation																							Consumption				
	Non renewable net generation	Nuclear	Fossil fuels	Fossil Brown coal / Lignite	Fossil Coal-derived gas	Fossil Gas	Fossil Hard coal	Fossil Oil	Fossil Oil shale	Fossil Peat	Hydro Pumped Storage	Waste	Other non-renewable	Renewable Net Generation	Wind Offshore	Wind Onshore	Solar	Biomass	Geothermal	Hydro Run-of-river and poundage	Hydro Water Reservoir	Marine	Other renewable	Total net generation	Consumption of Hydro Pumped Storage	Net Consumption	Area / Country	
	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh	TWh
AL																											1.3	AL
AT ¹	16.4		10.1			10.1					5.2	0.9	0.2	38.7		7.2	1	2.5	0	24.1	3.9				55.1	3.3	61.5	AT ¹
BA	4.7		4.6	4.6										1.8		0.1				0.2	1.4				6.5	0	5.4	BA
BE	70.5	41.7	20			20		0			1.2	2.2	5.3	19.4	6.5	4.4	6.4	1.9		0.1					89.9	1.6	81.7	BE
BG ²	42.9	16.5	26.4	23.2		2.6	0.5							7.1		1.4	1.7	0.3		1.4	2.4				49.9	0	37.8	BG ²
CH	29.3	23.6									5.7			13.2		0.2	3			1.9	8.1				42.5	0	64.6	CH
CY	1.8		1.8					1.8						0.1		0.1									1.9	0	1.8	CY
CZ	69.2	29.3	38.6	30.5	0.1	5.3	2.7	0			1	0.2	0.1	9.9		0.6	2.4	2.4		1	1.1		2.4		79.1	1.3	64.4	CZ
DE	273.1	32.8	220.9	103.5		53.5	62.9	1			10.6	6.4	2.3	233.8	24.7	100.6	55.4	39.5	0.2	11.3	1.1		1	506.9	14.3	482.7	DE	
DK	8.8		7.5			2.1	5.1	0.3						25.2	8.5	10.5	2.1	4.1							34	0	34.3	DK
EE	4.7		4.6		0.4	0			4.1	0		0.1		2.5		0.7	0.6	1.2		0			0	7.2	0	8.2	EE	
ES	145.4	56.2	86.3			77.2	7.9	1.1			0.5	2.3	0.3	116.6		58.8	31.1	4		6.8	15.1		0.8	262.1	6.2	236.1	ES	
FI	34.1	24.1	9.3			1.8	3.8	0		3.6		0.2	0.6	29.4		11.1		6		12.4			0	63.6	0	79.2	FI	
FR	331.7	278	47.2			42.3	3	1.8			5.2	1.4		101.4		36.9	18	3.5		33.2	9.8				433.2	6.3	442.8	FR
GB ³	0.5		0.5			0.4	0.1	0					0	0.6		0.6									1.1	0	0	GB ³
GE	3.4		3.4			3.4								9.9		0.1				4.2	5.7				13.3	0	14.9	GE
GR	24.6		24.6	5.6		19								15.1		9.4	5.7								39.7	0	48.7	GR
HR	5.1		4.6			3.2	1.4				0.4	0		7.9		2.3	0.1	0.6	0.1	1.2	3.3		0.3	13	0.2	18.1	HR	
HU	26.4	14.9	10.8	2.9		7.8	0	0				0.1	0.6	5		0.6	3.1	1.1	0	0.1	0.1		0.1	31.4	0	43.4	HU	
IE	9.1		8.9			5.8	1.7	0.9		0.4	0.2		0	8.3		7.8				0.5					17.4	0.3	13.1	IE
IT	168.1		146.7		6.1	117.3	20.9	2.4			3.1	0.3	18	80	0	20.1	22.5	5.6	5.4	23	3.4				248.1	2.4	286.3	IT
LT	1.5		0.5			0.5					0.6	0.4	0.1	2.6		1.5	0.4	0.4		0.4					4.1	0.8	12.2	LT
LU ⁴	0.2		0.1			0.1						0.1		0.9		0.3	0.3	0.3		0	0				1.1	0	5	LU ⁴
LV	1.3		1.1			1.1							0.2	3.2		0.2		0.3		2.7					4.5	0	6.8	LV
MD	4.4		4.4			4.4								0.3		0	0	0		0.3					4.7	0	5.6	MD
ME	1.4		1.4	1.4										1.6		0.3					1.2				3	0	2.9	ME
MK	3.9		3.9	3.9										1.1		0.1				0.7	0.3				4.9	0	6.3	MK
NL	82.1	3.9	55.6			36.3	19.3					3.4	19.2	13.9	7.9	5.4	0.4	0.2							95.9	0	100.4	NL
NO	3		1.3			1.3					1.5	0.2		142.1		14.8				24.3	102.6		0.4		145.1	0	131.6	NO
PL ⁵	131.5		130.2	42.7	0.5	9.1	75.7	2.2			1.3			31.2		18.8	9.3	1.6		1.5	0.1				162.7	0	172.4	PL ⁵
PT ⁶	19.8		16.4			16.4					3.2		0.2	24.3	0.1	12.9	2.5	3.3		4	1.5				44.1	3	50.3	PT ⁶
RO	32.3	11.1	21.2	10.1		10.6	0.4							22.9		6.9	1.4	0.6		8.6	5.5				55.2	0	56.2	RO
RS	23.1		22.2	21.5		0.7					0.6		0.3	9.4		0.6		0.3		8	0.5				32.5	0	34.1	RS
SE	58.7	50.1											8.6	102.6		32.8					69.8				161.3	0	132.1	SE
SI	8.9	5.3	3.3	2.8		0.5		0			0.3	0.1		3.4		0	0.3	0.1		3					12.3	0	13.4	SI
SK	20.8	15.9	3.5	0.9		1.8	0.3	0.5			0.3		1.2	5.3		0	0.5	0.8		3.4	0.2		0.4		26.1	0.4	27.2	SK
UA	23.5	15.6	7.6			0.8	6.8				0.2		0	2.5		0.9	0.4				1.2				25.9	0.3	26.1	UA
XK ⁷	5.8		5.8	5.8										0.3		0.2				0					6.1	0	6.3	XK ⁷
ENTSO-E ^{***}	1 692.2	619.1	955.3	259.4	7.1	455.6	212.7	12.3	4.1	4.1	41.1	19.6	57.2	1 093.1	47.7	369.1	168.3	80.5	5.7	178.1	238.2	0	5.5	2 785.3	40.4	2 815.4	ENTSO-E ^{***}	
%	60.75	22.23	34.30	9.31	0.25	16.36	7.64	0.44	0.15	0.15	1.48	0.70	2.05	39.25	1.71	13.25	6.04	2.89	0.20	6.39	8.55	0.00	0.20	100.00			%	
EU ^{***}	1 589.2	579.8	900.2	222.2	7.1	444.6	205.8	12.3	4.1	4.1	32.9	19.4	56.9	910.5	47.7	351.2	164.9	80.2	5.7	138.5	117.1	0	5.1	2 499.7	40.1	2 516.1	EU ^{***}	
%	63.6	23.2	36.0	8.9	0.3	17.8	8.2	0.5	0.2	0.2	1.3	0.8	2.3	36.4	1.9	14.1	6.6	3.2	0.2	5.5	4.7	0.0	0.2	100.0			%	

Net Generation Capacity⁷

Area / Country	Non renewable net generation	Nuclear	Fossil fuels	Fossil Brown coal/Lignite	Fossil Coal-derived gas	Fossil Gas	Fossil Hard coal	Fossil Oil	Fossil Oil shale	Fossil Peat	Hydro Pumped Storage	Waste	Other non-renewable	Renewable Net Generation	Wind Offshore	Wind Onshore	Solar	Biomass	Geothermal	Hydro Run-of-river and poundage	Hydro Water Reservoir	Marine	Other renewable	Total NGC	Area / Country
	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	
AL	97	0	97	0	0	0	0	97	0	0	0	0	0	2 203	0	0	0	0	0	527	1 676	0	0	2 300	AL
AT ¹	9 073	0	4 513	0	0	4 350	0	164	0	0	3 503	103	954	14 794	0	3 500	2 500	482	0	5 837	2 475	0	0	23 867	AT ¹
BA	2 328		1 888	1 888							440			1 881		135				291	1 456			4 209	BA
BE	14 870	5 943	7 217			6 819		398			1 308	384	19	10 714	2 254	2 787	4 788	700		185				25 584	BE
BG ²	8 730	2 080	5 780	4 119	0	1 305	356	0	0	0	864	6	0	4 855	0	705	1 726	74	0	540	1 810	0	0	13 585	BG ²
CH	9 651	2 970									6 681			6 193						605	5 588			15 843	CH
CZ	15 382	4 040	10 070	7 250	380	1 240	1 200	0			1 172	100	0	4 321		339	2 053	410		356	753		410	19 703	CZ
DE	88 506	4 056	71 893	18 544	0	30 553	18 830	3 966			9 280	1 599	1 679	134 612	7 787	55 289	57 744	8 332	51	3 660	1 397		352	223 119	DE
DK	6 167		5 783			1 621	3 165	997				384		10 499	2 305	4 644	1 536	1 870		7			137	16 666	DK
EE	1 572		1 542		25	94		52	1 371			17	13	830		326	370	130		4				2 402	EE
ES	48 734	7 117	35 238	0	0	29 927	4 642	669	0	0	5 695	565	118	63 690	0	27 735	14 640	702	0	1 155	19 187	0	272	112 424	ES
FI	9 154	2 794	5 784			1 935	1 682	1 051		1 116		114	462	8 575		3 184	7	1 895		3 167			322	17 729	FI
FR	86 176	61 370	17 652			13 074	1 816	2 762			5 050	947	1 157	54 854	20	19 516	13 154	1 301	2	11 834	8 785	243		141 030	FR
GE	1 189		1 189			1 189								3 460		21				1 058	2 381			4 649	GE
GR	7 913		7 214	2 001		5 213		0			699			10 907		4 150	3 820	106	0	319	2 403		109	18 820	GR
HR	1 329		1 042			750	217	75			281	6		3 073		925	96	111	10	428	1 446		57	4 402	HR
HU	7 413	1 916	5 448	1 007		3 974	42	425				49		3 193		323	2 524	213	3	33	28		70	10 606	HU
IE	7 675		6 736			4 265	855	1 272		344	292		647	2 152		1 919			17	216				9 826	IE
IT	60 071		51 868	0	2 041	41 961	6 376	1 490		0	7 256	122	825	33 160	0	10 658	5 137	1 548	869	10 507	4 441	0	0	93 231	IT
LT	2 534		1 527			1 527		0			900	70	37	1 153		671	259	95		128			0	3 687	LT
LU ⁴	117	0	96	0	0	96	0	0	0	0	0	21	0	508	0	167	258	47	0	25	11	0	0	625	LU ⁴
LV	1 162		1 162			1 162								1 853		87	14	164		1 588				3 015	LV
ME	210		210	210										767		118				307	342			977	ME
MK	1 075		1 075	824		251								710		37	22	7			644			1 785	MK
NL	23 786	486	22 536	0	0	18 530	4 006	0	0	0	0	763	1	23 291	2 460	5 310	14 911	572	0	38	0	0	0	47 077	NL
NO	1 825		639			639					1 065	90	31	38 565		5 105				6 677	26 683		100	40 390	NO
PL	34 232		31 117	7 560	284	3 807	19 073	393			1 591		1 524	16 046		7 950	6 664	647		321	464			50 279	PL
PT	7 375	0	4 520	0	0	4 520	0	0	0	0	2 827	0	28	11 438	25	5 328	1 032	681	0	2 856	1 515	0	0	18 813	PT
RO	6 191	1 300	4 891	2 497		2 218	176							10 370		2 957	1 160	116		2 780	3 357			16 561	RO
RS	6 823		6 146	5 661		486					642		35	3 063		533	3	2		2 051	473			9 886	RS
SE	15 300	6 900											8 400	28 400		12 100					16 300			43 700	SE
SI	2 409	696	1 529	981	0	548	0	0	0	0	180	4	0	1 603	0	3	459	16	0	1 125	0	0	0	4 013	SI
UA	43 269	13 835	27 947			9 360	18 587				1 488			11 502		1 111	5 363	199		192	4 637			54 771	UA
XK ⁵	1 288		1 288	1 288										204		136				33	35			1 492	XK ⁵
ENTSO-E ⁶	533 627	115 503	345 635	53 829	2 730	191 413	81 023	13 810	1 371	1 460	51 215	5 344	15 930	523 439	14 851	177 769	140 239	20 421	951	58 848	108 288	243	1 828	1 057 066	ENTSO-E ⁶
%	50.48	10.93	32.70	5.09	0.26	18.11	7.66	1.31	0.13	0.14	4.84	0.51	1.51	49.52	1.40	16.82	13.27	1.93	0.09	5.57	10.24	0.02	0.17	100.00	%
EU ⁷	465 872	98 698	305 157	43 959	2 730	179 488	62 436	13 713	1 371	1 460	40 899	5 254	15 864	454 891	14 851	170 573	134 851	20 212	951	47 108	64 373	243	1 729	920 763	EU ⁷
%	50.60	10.72	33.14	4.77	0.30	19.49	6.78	1.49	0.15	0.16	4.44	0.57	1.72	49.40	1.61	18.53	14.65	2.20	0.10	5.12	6.99	0.03	0.19	100.00	%

¹ All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenNET DE and TransnetBW).

² The presented figures for BG are actually gross generation and gross consumption, power plants auxiliary consumption is included. This is due to the fact that data for this report is taken from Transparency Platform.

³ All data with the country code GB represents the available data in ENTSO-E Transparency Platform for England, Northern Ireland, Scotland and Wales.

⁴ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).

⁵ The presented figures for PL are actual net generation and gross consumption, consumption of Hydro Pump Storage is not included. This is analogous to Transparency Platform, which is the source of the reported data.

⁶ Hydro Pumped Storage includes generation from natural flows and from pumped storage. This leads to a lower renewable generation share since generation from natural flows is not being considered renewable.

⁷ Sum of generation capacity (MW) installed for all existing production units equaling to or exceeding 1 MW installed generation capacity as of 1st of January 2022.

⁸ The given NGC for BG are gross figures.

^{*} This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

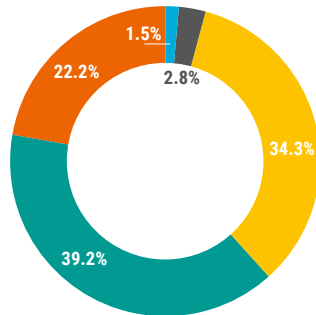
^{***} Calculated sum of the ENTSO-E member TSOs.

^{****} The 27 member countries of the EU are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden. Please note that, as it does not have a TSO, Malta is not a member of ENTSO-E and thus the Statistical Factsheet includes data from all EU countries except Malta.

Generation

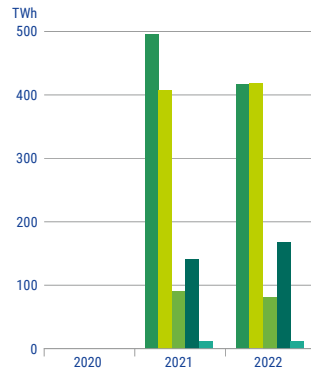
Generation mix in ENTSO-E member TSOs in 2022¹

	TWh
Fossil fuels net generation (lignite and hard coal, gas, oil, mixed fuels, peat)	955.3
Renewable net generation (renewable hydro, wind, solar, biomass, geothermal)	1 093.1
Thermal nuclear net generation	619.1
Hydro net generation (except renewable part)	41.1
Net generation not identified	76.8



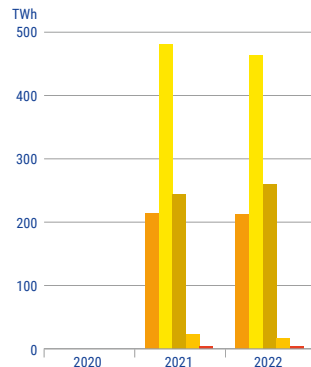
ENTSO-E renewable generation¹

	Year	TWh	%
Renewable net generation	2020	n.a.	
	2021	1 145.3	
	2022	1 093.1	
of which hydro	2020	n.a.	n.a.
	2021	494.5	43
	2022	416.2	38
of which wind	2020	n.a.	n.a.
	2021	407.3	36
	2022	416.8	38
of which biomass	2020	n.a.	n.a.
	2021	90.2	8
	2022	80.5	7
of which solar	2020	n.a.	n.a.
	2021	141.4	12
	2022	168.3	15
of which other renewable	2020	n.a.	n.a.
	2021	11.9	1
	2022	11.2	1

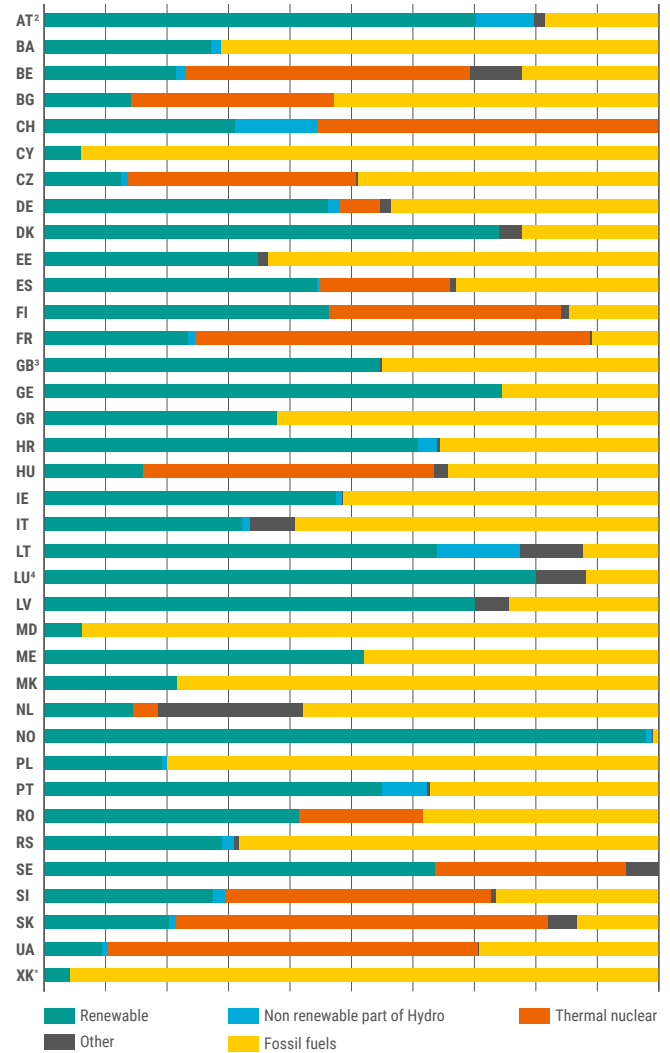


ENTSO-E fossil fuels generation¹

	Year	TWh	%
Fossil fuels net generation	2020	n.a.	
	2021	964	
	2022	955.3	
of which hard coal	2020	n.a.	n.a.
	2021	214.1	22
	2022	212.7	22
of which gas	2020	n.a.	n.a.
	2021	479.9	50
	2022	462.6	48
of which lignite	2020	n.a.	n.a.
	2021	243.7	25
	2022	259.4	27
of which oil	2020	n.a.	n.a.
	2021	22.1	2
	2022	16.4	2
of which other fuels	2020	n.a.	n.a.
	2021	4.2	0
	2022	4.1	0.4



Share of energy produced of each member TSOs 2022 in %¹



¹ Share of energy produced, based on the aggregated generation for each ENTSO-E TSO.

² All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).

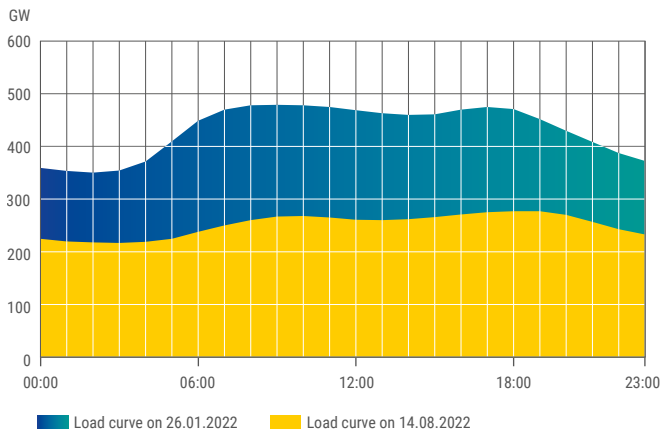
³ All data with the country code GB represents the available data in ENTSO-E Transparency Platform for England, Northern Ireland, Scotland and Wales.

⁴ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).

⁵ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

ENTSO-E peak load 2022

2022 ENTSO-E load diagram on the days of the highest and lowest load values



Values in MW on the days of highest and lowest ENTSO-E load values^{1,2}

	26.01.2022 18:00 – 19:00	14.08.2022 05:00 – 06:00	26.01.2022 18:00 – 19:00	14.08.2022 05:00 – 06:00	26.01.2022 18:00 – 19:00	14.08.2022 05:00 – 06:00		
AT ³	9 043	4 967	GE	2 071	1 652	NL	15 691	9 346
BE	12 163	7 230	GR	8 479	4 554	NO	18 874	10 909
BG ⁴	6 656	3 525	HR	2 869	1 579	PL ⁶	25 086	14 079
CH	9 731	5 112	HU	6 794	3 561	PT	8 200	3 877
CZ	9 744	4 991	IT	46 209	21 076	RO	8 693	5 028
DE	74 096	38 365	LT	1 774	1 244	RS	5 601	2 679
DK	5 157	2 926	LU ⁵	774	398	SE	19 957	10 539
EE	1 199	715	LV	1 016	611	SI	2 123	1 011
ES	36 435	20 731	MD	871	543	SK	4 151	2 409
FI	11 425	7 191	ME	511	280	XK [*]	1 278	379
FR	83 518	32 271	MK	1 283	425			
ENTSO-E ⁷						441 471	224 204	

¹ This is the average of the hour.

² All times are in UTC.

³ All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).

⁴ The presented load for BG includes power plant auxiliary consumption in it.

⁵ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).

⁶ Gross value.

⁷ Calculated load values as sum of the ENTSO-E member TSOs.

^{*} This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Highest and lowest hourly load values for 2022 in MW¹

	HIGHEST LOAD		VALUE	LOWEST LOAD		VALUE
	Date	Time ²	(in MW)	Date	Time ²	(in MW)
AL	25.01.2022	17:00 – 18:00	403	03.10.2022	01:00 – 02:00	96
AT ³	13.12.2022	07:00 – 08:00	10 255	14.08.2022	02:00 – 03:00	4 308
BA	21.12.2022	08:00 – 09:00	2 569	31.01.2022	23:00 – 00:00	0
BE	20.01.2022	17:00 – 18:00	13 094	17.10.2022	01:00 – 02:00	6 308
BG ⁴	26.01.2022	07:00 – 08:00	7 150	23.06.2022	20:00 – 21:00	2 768
CH	21.01.2022	13:00 – 14:00	10 189	01.08.2022	06:00 – 07:00	4 510
CY	26.01.2022	16:00 – 17:00	956	15.04.2022	08:00 – 09:00	140
CZ	14.12.2022	12:00 – 13:00	10 733	07.08.2022	03:00 – 04:00	4 195
DE	01.02.2022	11:00 – 12:00	78 681	25.12.2022	01:00 – 02:00	34 359
DK	17.01.2022	16:00 – 17:00	5 834	17.07.2022	03:00 – 04:00	2 233
EE	11.01.2022	08:00 – 09:00	1 464	24.06.2022	01:00 – 02:00	518
ES	14.07.2022	12:00 – 13:00	37 898	25.12.2022	04:00 – 05:00	16 101
FI	11.01.2022	06:00 – 07:00	13 767	26.06.2022	01:00 – 02:00	6 203
FR	14.01.2022	08:00 – 09:00	86 279	30.10.2022	03:00 – 04:00	30 321
GE	21.06.2022	13:00 – 14:00	2 965	05.10.2022	02:00 – 03:00	1 072
GR	25.07.2022	11:00 – 12:00	9 126	31.10.2022	04:00 – 05:00	408
HR	04.07.2022	11:00 – 12:00	3 131	02.11.2022	01:00 – 02:00	1 212
HU	25.01.2022	16:00 – 17:00	7 077	01.11.2022	02:00 – 03:00	3 226
IE	14.12.2022	17:00 – 18:00	5 512	02.01.2022	05:00 – 06:00	2 477
IT	25.07.2022	14:00 – 15:00	51 761	26.12.2022	03:00 – 04:00	16 642
LT	12.01.2022	07:00 – 08:00	2 233	06.06.2022	01:00 – 02:00	847
LU ⁵	27.01.2022	10:00 – 11:00	823	26.12.2022	02:00 – 03:00	349
LV	04.02.2022	07:00 – 08:00	1 206	25.06.2022	01:00 – 02:00	457
MD	03.02.2022	09:00 – 10:00	1 071	18.07.2022	13:00 – 14:00	0
ME	08.08.2022	18:00 – 19:00	560	14.05.2022	02:00 – 03:00	121
MK	25.01.2022	21:00 – 22:00	1 385	08.12.2022	03:00 – 04:00	44
NL	14.12.2022	16:00 – 17:00	17 704	17.04.2022	12:00 – 13:00	5 383
NO	16.12.2022	08:00 – 09:00	22 416	19.06.2022	01:00 – 02:00	9 992
PL ⁶	16.12.2022	10:00 – 11:00	27 211	26.12.2022	02:00 – 03:00	11 824
PT	26.01.2022	19:00 – 20:00	8 552	02.01.2022	04:00 – 05:00	3 602
RO	13.01.2022	07:00 – 08:00	9 211	30.10.2022	00:00 – 01:00	1 127
RS	25.01.2022	08:00 – 09:00	5 935	12.06.2022	03:00 – 04:00	2 278
SE	16.12.2022	08:00 – 09:00	24 250	02.08.2022	02:00 – 03:00	9 013
SI	24.01.2022	11:00 – 12:00	2 318	10.08.2022	02:00 – 03:00	723
SK	25.01.2022	10:00 – 11:00	4 409	11.09.2022	01:00 – 02:00	1 899
UA	25.01.2022	07:00 – 08:00	24 171	25.02.2022	01:00 – 02:00	12 899
XK [*]	24.01.2022	21:00 – 22:00	1 406	29.05.2022	03:00 – 04:00	289

¹ This is the average of the hour.

² All times are in UTC.

³ All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).

⁴ The presented load for BG includes power plant auxiliary consumption in it.

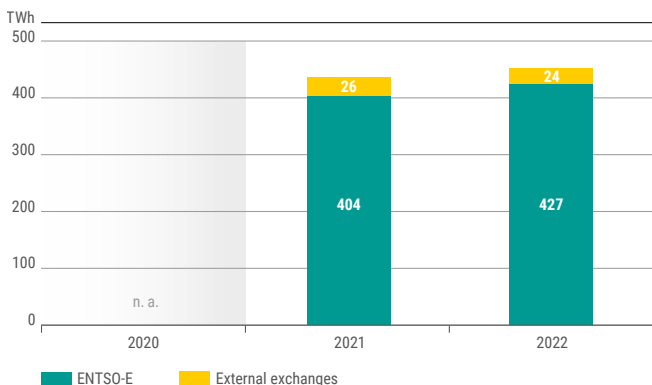
⁵ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).

⁶ Gross value.

^{*} This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Development of exchanges

Development of overall cross-border exchanges of ENTSO-E member TSOs



Overview electricity exchanges for the past 3 years in GWh

	All Exchanges	ENTSO-E	External ¹
2020	n. a.	n. a.	n. a.
2021	429 314	429 314	25 509
2022	450 653	426 631	24 022

¹ External exchanges include Andorra, Armenia, Azerbaijan, Belarus, Georgia, Iraq, Iran, Moldova, Morocco, Russia, Syria and Ukraine

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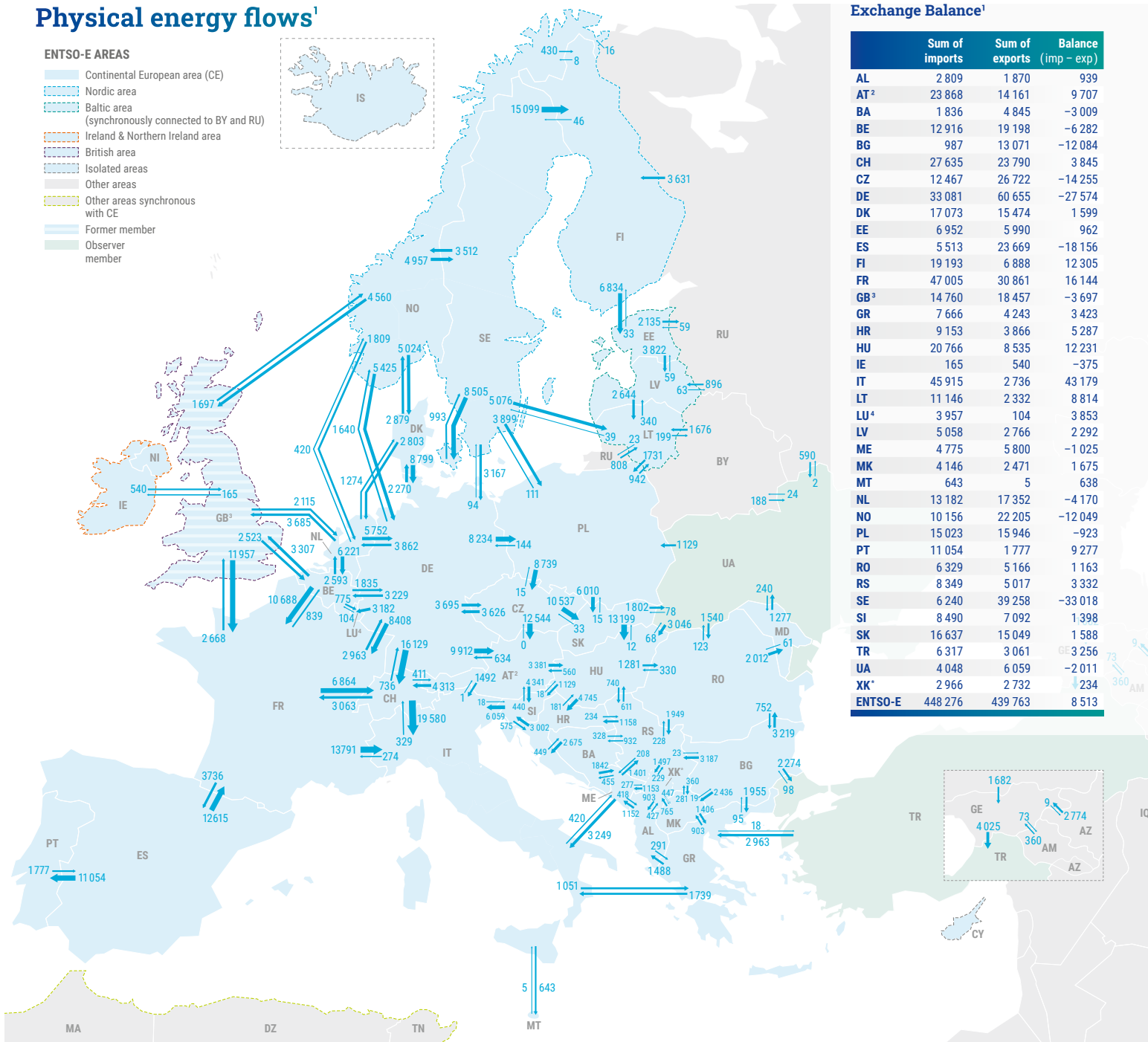
Images: iStockphoto.com

Publishing date: June 2023

Physical energy flows¹

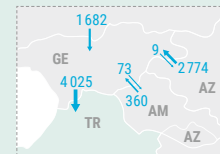
ENTSO-E AREAS

- ▬ Continental European area (CE)
- ▬ Nordic area
- ▬ Baltic area (synchronously connected to BY and RU)
- ▬ Ireland & Northern Ireland area
- ▬ British area
- ▬ Isolated areas
- ▬ Other areas
- ▬ Other areas synchronous with CE
- ▬ Former member
- ▬ Observer member

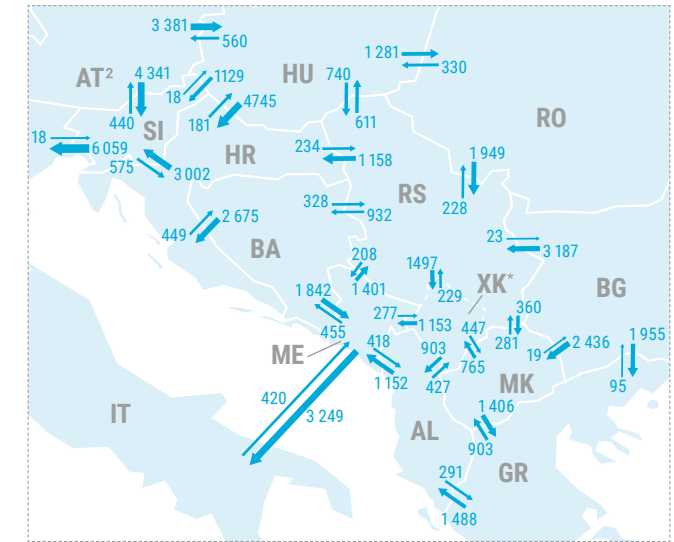


Exchange Balance¹

	Sum of imports	Sum of exports	Balance (imp - exp)
AL	2 809	1 870	939
AT ²	23 868	14 161	9 707
BA	1 836	4 845	-3 009
BE	12 916	19 198	-6 282
BG	987	13 071	-12 084
CH	27 635	23 790	3 845
CZ	12 467	26 722	-14 255
DE	33 081	60 655	-27 574
DK	17 073	15 474	1 599
EE	6 952	5 990	962
ES	5 513	23 669	-18 156
FI	19 193	6 888	12 305
FR	47 005	30 861	16 144
GB ³	14 760	18 457	-3 697
GR	7 666	4 243	3 423
HU	9 153	3 866	5 287
HU	20 766	8 535	12 231
IE	165	540	-375
IT	45 915	2 736	43 179
LT	11 146	2 332	8 814
LU ⁴	3 957	104	3 853
LV	5 058	2 766	2 292
ME	4 775	5 800	-1 025
MK	4 146	2 471	1 675
MT	643	5	638
NL	13 182	17 352	-4 170
NO	10 156	22 205	-12 049
PL	15 023	15 946	-923
PT	11 054	1 777	9 277
RO	6 329	5 166	1 163
RS	8 349	5 017	3 332
SE	6 240	39 258	-33 018
SI	8 490	7 092	1 398
SK	16 637	15 049	1 588
TR	6 317	3 061	3 256
UA	4 048	6 059	-2 011
XK [*]	2 966	2 732	234
ENTSO-E	448 276	439 763	8 513



Map section of the Balkans



- ¹ Hourly netted physical flow values measured in GWh.
- ² All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).
- ³ All data with the country code GB represents the available data in ENTSO-E Transparency Platform for England, Northern Ireland, Scotland and Wales.
- ⁴ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).
- ^{*} This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.



Grid information

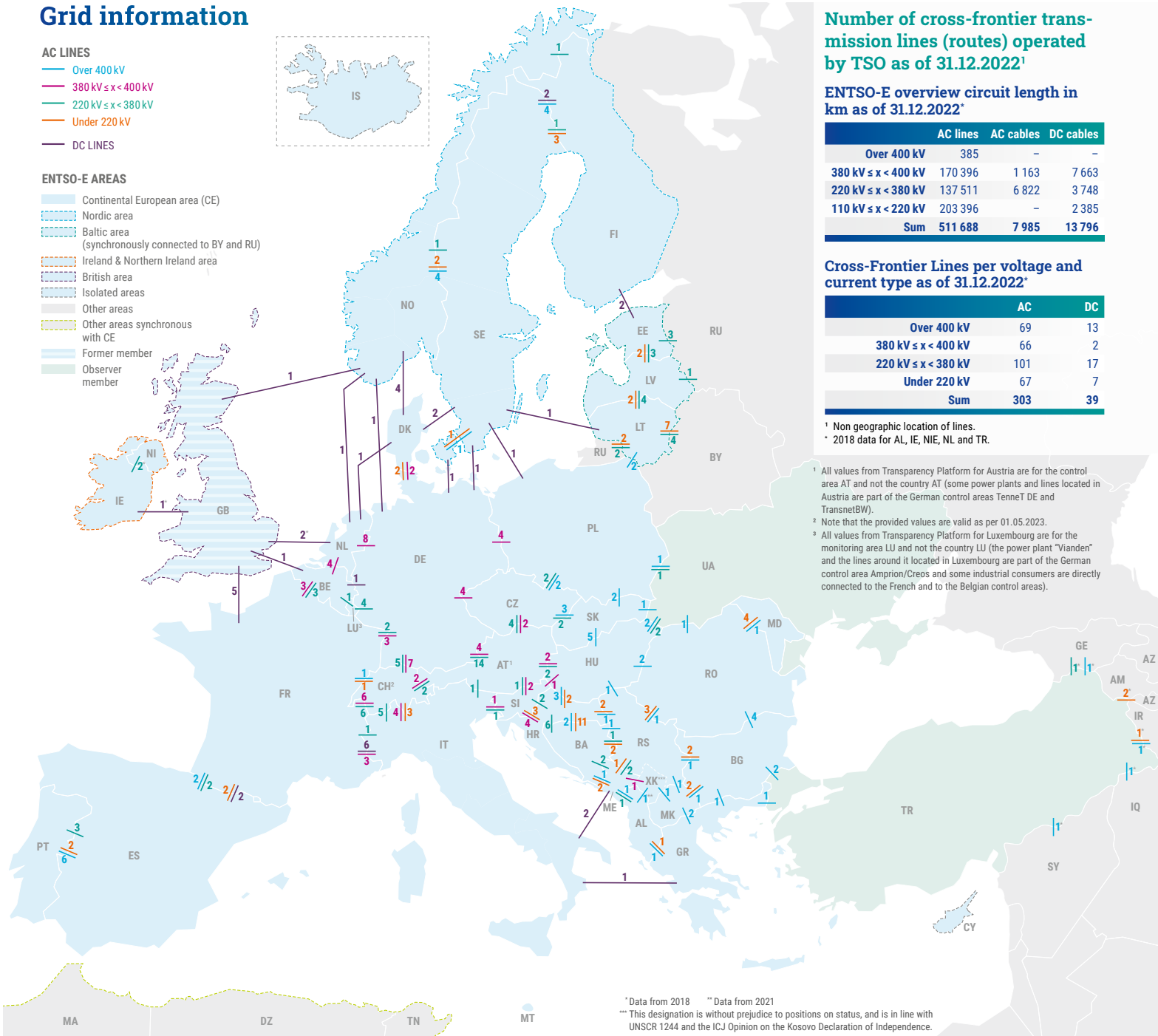
AC LINES

- Over 400 kV
- 380 kV ≤ x < 400 kV
- 220 kV ≤ x < 380 kV
- Under 220 kV

DC LINES

ENTSO-E AREAS

- Continental European area (CE)
- Nordic area
- Baltic area
(synchronously connected to BY and RU)
- Ireland & Northern Ireland area
- British area
- Isolated areas
- Other areas
- Other areas synchronous with CE
- Former member
- Observer member



¹ Non geographic location of lines.
² 2018 data for AL, IE, NIE, NL and TR.

¹ All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).
² Note that the provided values are valid as per 01.05.2023.
³ All values from Transparency Platform for Luxembourg are for the monitoring area LU and not the country LU (the power plant "Vianden" and the lines around it located in Luxembourg are part of the German control area Amprion/Creos and some industrial consumers are directly connected to the French and to the Belgian control areas).

¹ Data from 2018 ² Data from 2021
³ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Members of ENTSO-E

AL	Albania	OST	OST sh.a – Albanian Transmission System Operator
AT	Austria	APG VUEN	Austrian Power Grid AG Vorarlberger Übertragungsnetz GmbH
BA	Bosnia and Herzegovina	NOS BiH	Nezavisni operator sustava u Bosni i Hercegovini
BE	Belgium	Elia	Elia System Operator SA
BG	Bulgaria	ESO	Electroenergien Sistemen Operator EAD (Електроенергиен системен оператор)
CH	Switzerland	Swissgrid	Swissgrid AG
CY	Cyprus	Cyprus TSO	Cyprus Transmission System Operator
CZ	Czech Republic	ČEPS	ČEPS a.s.
DE	Germany	TransnetBW TenneT DE Amprion 50Hertz	TransnetBW GmbH TenneT TSO GmbH Amprion GmbH 50Hertz Transmission GmbH
DK	Denmark	Energinet	Energinet.dk
EE	Estonia	Elering AS	Elering AS
ES	Spain	REE	Red Eléctrica de España S.A.U.
FI	Finland	Fingrid	Fingrid Oyj
FR	France	RTE	Réseau de Transport d'Electricité
GR	Greece	IPTO	Independent Power Transmission Operator S.A.
HR	Croatia	HOPS	HOPS d.d.
HU	Hungary	MAVIR ZRt.	MAVIR Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság
IE	Ireland	EirGrid	EirGrid plc
IS	Iceland	Landsnet	Landsnet hf
IT	Italy	Terna	Terna – Rete Elettrica Nazionale SpA
LT	Lithuania	Litgrid	Litgrid AB
LU	Luxembourg	Creos Luxembourg	Creos Luxembourg S.A.
LV	Latvia	AST	AS Augstsprieguma tīkls
ME	Montenegro	CGES AD	Crnogorski elektroprenosni sistem AD
MK	Republic of North Macedonia	MEPSO	Transmission System Operator of the Republic of North Macedonia
NI	Northern Ireland ¹	SONI	System Operator for Northern Ireland Ltd
NL	The Netherlands	TenneT NL	TenneT TSO B.V.
NO	Norway	Statnett	Statnett SF
PL	Poland	PSE S.A.	Polskie Sieci Elektroenergetyczne S.A.
PT	Portugal	REN	Rede Eléctrica Nacional, S.A.
RO	Romania	Transelectrica	C.N. Transelectrica S.A.
RS	Serbia	EMS	Akcionarsko društvo Elektromreža Srbije
SE	Sweden	Svenska Kraftnät	Svenska Kraftnät
SI	Slovenia	ELES	ELES, d.o.o.
SK	Slovak Republic	SEPS	Slovenská elektrizačná prenosová sústava, a.s.
Observer member			
TR	Turkey	TEİAŞ	Turkish Electricity Transmission Corporation
UA	Ukraine	Ukrenergo	National Power Company Ukrenergo

¹ In compliance with 12 February 2021 EC Notice to Stakeholders on the Withdrawal of the UK and EU rules in the field of the Internal Energy Market.

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