Statistical Factsheet 2019

Provisional values as of November 2024

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.

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ENTSO-E in figures – Electricity system data of member TSOs in 2019

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	Other renewable	Total net generation	Consumption of Hydro Pumped Storage	Net Consumption	Area / Country
	Aggregated generation																							Consumption		
	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	
AT[1]	17.0		11.4			10.2	1.3				4.5	0.9	0.2	43.2		8.0	0.7	2.2	0.0	27.5	4.8		60.1	2.1	63.1	AT[1]
BA	9.7		9.7	2.1			7.6				0.0			5.5		0.2				0.0	5.3		15.2		11.9	BA
BE	73.5	41.4	23.5			23.5		0.0			0.9	2.0	5.7	14.1	4.7	3.4	3.5	2.4		0.2			87.6	1.1	84.9	BE
BG[2]	38.1	16.6	21.1	18.4		2.2	0.5				0.4	0.0		5.7		1.3	1.3	0.2		1.1	1.8		43.8		37.5	BG[2]
CH	33.4	25.7									7.7			14.3		0.1	0.4			1.9	11.9		47.7		63.4	CH
CY	3.8		3.8					3.8						0.2		0.2							4.0		3.7	CY
CZ	71.6	28.6	40.7	31.8	1.5	5.4	2.0	0.1			1.1	0.2	1.0	9.2		0.7	2.3	2.0		0.8	1.1	2.4	80.8	1.5	66.1	CZ
DE	300.0	71.0	211.1	102.7	2.0	54.6	47.8	4.0			8.6	5.9	3.3	224.3	24.4	99.9	41.8	40.4	0.2	14.5	2.0	1.3	524.3	11.0	497.4	DE
DK	8.0		6.7			2.6	3.8	0.3				1.3		20.6	5.6	10.3	1.0	3.7					28.6		33.5	DK
EE	4.7		4.5		0.5	0.0			4.0	0.0		0.1		1.4		0.7	0.0	0.6		0.0		0.1	6.0		8.2	EE
ES	149.1	55.9	90.3	0.5		77.0	10.6	2.2				2.5	0.4	97.2		52.3	14.4	2.9		8.7	17.9	0.9	246.3	3.2	250.0	ES
FI	36.9	22.9	12.9			4.5	4.7	0.0		3.7		0.3	0.8	23.3		5.7		5.9		11.4		0.2	60.2		83.4	FI
FR	425.8	377.9	41.1			37.9	1.6	1.6			5.0	1.7		101.4		32.7	11.4	3.1		40.4	13.8		527.1	5.4	467.2	FR
GB[3]	176.0	52.5	120.9			114.8	6.1	0.0			1.8		0.8	78.8	20.0	27.1	11.0	17.1		3.6			254.8		302.7	GB[3]
GR	28.0		28.0	10.7		17.3								9.4		5.8	3.6					37.4		51.7	GR
HR	4.2		3.7			2.2	1.5	0.0			0.5	0.0		7.7		1.5	0.1	0.4	0.1	1.6	3.6	0.4	11.9	0.2	17.9	HR
HU	27.8	15.4	11.6	4.0		7.5		0.0				0.1	0.7	2.2		0.7	0.2	1.0		0.1	0.1	0.1	30.0		43.5	HU
IE	13.6		13.4			8.5	0.6	2.2		2.1	0.3		0.0	10.3		9.5				0.8			24.0	0.4	29.0	IE
IT	166.0		137.1		5.4	113.6	17.1	1.0			3.2	0.3	25.3	92.4		19.9	19.1	5.1	5.7	34.5	8.1		258.3	2.2	294.1	IT
LT	1.3		0.4			0.4					0.6	0.1	0.2	2.3		1.4	0.1	0.4		0.4			3.6	0.1	12.2	LT
LU[4]	0.4		0.2			0.2						0.1		0.7		0.3	0.1	0.2		0.1	0.0		1.0		5.2	LU[4]
LV	3.4		2.8			2.8							0.6	2.8		0.1		0.6		2.0			6.1		7.2	LV
ME	1.4		1.4	1.4										1.9		0.3					1.6		3.3		3.4	ME
MK	4.2		4.2	3.3		0.9								0.9		0.1				0.0	0.9		5.2		6.2	MK
NL	102.5	3.7	61.4			45.0	16.5					2.2	35.1	6.8	3.5	3.2	0.1	0.0					109.3		113.9	NL
NO	3.2		3.0			3.0							0.2	130.2		5.2				10.4	114.6		133.4		133.5	NO
PL[5]	127.7		126.7	37.8	0.5	10.6	76.2	1.6			0.9			18.2		14.6		2.1		1.4	0.1		145.8		168.9	PL[5]
PT	24.7		21.3			16.1	5.2				3.0		0.4	24.3		13.4	1.1	2.7		5.2	1.9		49.0	1.9	50.3	PT
RO	34.5	11.3	23.2	12.7		9.3	1.1							24.2		6.7	1.4	0.4		10.3	5.4		58.6		60.1	RO
RS	24.4		23.2	23.2		0.0					0.7		0.5	9.6				0.1		8.9	0.6		34.0		39.3	RS
SE	73.4	64.4											9.0	85.0		19.5					65.5		158.4		136.4	SE
SI	10.2	5.5	4.4	4.0		0.4		0.0			0.2	0.1		4.7		0.0	0.2	0.1		4.3			14.8		14.1	SI
SK	21.6	15.3	4.9	1.3		2.7	0.4	0.5			0.2		1.2	6.2		0.0	0.5	0.8		4.0	0.3	0.5	27.8	0.3	29.0	SK
UA																									142.8	UA
ENTSO-E*	2 002.8	808.2	1 057.1	253.8	9.9	563.0	203.2	17.3	4.0	5.9	35.1	17.1	85.2	1 035.8	58.2	336.7	113.5	92.2	5.9	166.7	256.6	5.8	3 038.5	27.2	3 269.1	ENTSO-E*
%	65.91	26.60	34.79	8.35	0.33	18.53	6.69	0.57	0.13	0.19	1.16	0.56	2.80	34.09	1.92	11.08	3.74	3.04	0.20	5.49	8.44	0.19	100.00			%
EU**	1 943.5	782.4	1 027.1	223.9	9.9	569.3	196.9	17.3	4.0	5.9	31.2	18.0	84.8	916.4	58.2	338.8	113.8	94.3	5.9	173.0	126.5	5.8	2 859.9	25.6	2 605.4	EU**
%	68.0	27.4	35.9	7.8	0.3	19.9	6.9	0.6	0.1	0.2	1.1	0.6	3.0	32.0	2.0	11.8	4.0	3.3	0.2	6.1	4.4	0.2	100.0			%

All footnotes on page 6

Net Generation Capacity[6]

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														1 492				0		0	1 492			1 492	AL[1]
AT[1]	8 532	0	5 239	0	0	4 463	598	178	0	0	3 120	150	23	12 768	0	3 035	1 193	500	1	5 558	2 440	0	42	21 300	AT
BA	1 876		1 876	989			887							2 256		87					2 170			4 132	BA
BE	14 516	5 943	6 884			6 642		242			1 308	362	19	7 957	1 548	2 248	3 369	619		172				22 473	BE
BG[7]	8 577	2 000	5 707	4 119		1 232	356				864	6		4 180		700	1 059	74		537	1 810			12 757	BG[7]
CH	10 014	3 373									6 641			6 053						635	5 419			16 067	CH
CY	1 478		1 478					1 478						320		158	150	12						1 798	CY
CZ	16 568	4 040	11 256	8 450	380	1 226	1 200	0			1 172	100	0	4 252		316	2 049	400		334	753		400	20 820	CZ
DE	104 377	9 516	82 518	21 205	0	31 664	25 293	4 356			9 422	1 686	1 235	118 003	6 393	52 792	45 299	7 752	42	3 983	1 298		445	222 380	DE
DK	6 861		6 477			1 814	3 656	1 007				384		9 004	1 700	4 426	1 014	1 722		7			135	15 865	DK
EE	2 173	0	2 155	0	51	125	0	8	1 970	0	0	19	0	672	0	462	33	157	0	7	0	0	12	2 845	EE
ES	53 958	7 117	40 541	0	0	30 266	9 561	714	0	0	5 645	538	117	50 782	0	22 961	6 751	507	0	1 156	19 146	0	261	104 740	ES
FI	10 035	2 785	6 759			1 912	2 278	1 434		1 135		157	334	7 225		2 013	3	1 804		3 148			257	17 260	FI
FR	87 450	63 130	19 189			11 952	3 966	3 271			5 023		108	43 203		13 610	8 188	1 931		10 955	8 279	240		130 653	FR
GB	63 287	9 229	46 808			37 698	8 794	316			2 744		4 506	44 270	9 379	13 633	13 438	4 061		1 885			1 873	107 557	GB
GE	925		925			912	13							3 172		20				1 160	1 992			4 097	GE
GR	9 513		8 814	3 912		4 902		0			699			7 618		2 355	2 441	51	0	299	2 403		69	17 131	GR
HR	2 301		2 012			743	332	937			283	6		2 656		616	53	71	10	421	1 436		49	4 957	HR
HU	7 457	1 899	5 498	1 049		4 028		421				59		1 645		327	936	246	3	30	28		74	9 101	HU
IE	7 675		6 736			4 265	855	1 272		344	292		647	2 152		1 919			17	216				9 826	IE
IT	63 125		54 428	0	1 812	46 322	4 851	1 443		0	7 574	132	991	31 248	0	9 617	4 717	1 538	869	10 650	3 857	0	0	94 373	IT
LT	2 771		1 710			1 710		0			900	21	140	831		525	82	96		128			0	3 602	LT
LU[4]	102	0	81	0	0	81	0	0	0	0	0	21	0	356	0	154	136	30	0	25	11	0	0	458	LU[4]
LV	1 110		1 110			1 110								1 731		59	7	126		1 539				2 841	LV
ME	210		210	210										767		118				307	342			977	ME
MK	1 240		1 240	824		251		165						541		35					506			1 781	MK
NL	21 446	486	20 201	0	0	15 570	4 631	0	0	0	0	758	1	9 524	957	3 436	4 608	485	0	38	0	0	0	30 970	NL
NO	1 666		635			635					1 031		0	34 671		2 262				5 937	26 472			36 337	NO
PL	34 847		33 067	8 013	272	2 106	22 261	415			1 780			7 679		5 808	430	849		435	157			42 527	PL
PT	9 218	0	6 362	0	0	4 606	1 756	0	0	0	2 820	0	36	10 428	0	5 127	324	605	0	2 858	1 515	0	0	19 646	PT
RO	8 461	1 300	7 161	3 096		3 033	1 032							10 376		2 968	1 150	115		2 770	3 373			18 837	RO
RS	6 549		5 887	5 601		286					639		23	2 733		398		8		1 982	345			9 282	RS
SE	17 025	8 586											8 439	23 807		7 506					16 301			40 832	SE
SI	2 389	696	1 473	924	0	491	0	58	0	0	180	40	0	1 349	0	3	275	17	0	1 053	0	0	1	3 738	SI
SK	5 225	1 940	1 951	320		1 153	221	257			916		418	2 490		3	531	214		1 208	418		116	7 715	SK
ENTSO-E*	592 956	122 040	396 387	58 711	2 515	221 200	92 541	17 972	1 970	1 479	53 054	4 439	17 037	468 210	19 977	159 696	98 236	23 991	941	59 433	101 962	240	3 734	1061167	ENTSO-E*
%	55.88	11.50	37.35	5.53	0.24	20.84	8.72	1.69	0.19	0.14	5.00	0.42	1.61	44.12	1.88	15.05	9.26	2.26	0.09	5.60	9.61	0.02	0.35	100.00	%
EU**	570 477	118 667	385 615	51 088	2 515	219 115	91 641	17 807	1 970	1 479	44 743	4 439	17 014	416 524	19 977	156 776	98 236	23 983	941	49 412	63 224	240	3 734	987 002	EU**
%	57.80	12.02	39.07	5.18	0.25	22.20	9.28	1.80	0.20	0.15	4.53	0.45	1.72	42.20	2.02	15.88	9.95	2.43	0.10	5.01	6.41	0.02	0.38	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] 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 2019.

[7] The given NGC for BG are gross figures

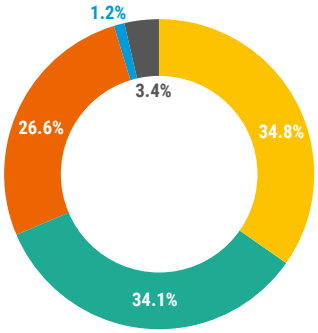
* Calculated sum of the ENTSO-E member TSOs

** The 28 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, Sweden and the United Kingdom. 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

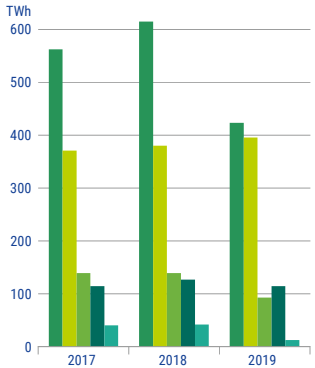
Generation mix in ENTSO-E member TSOs in 2019[1]

	TWh
Fossil fuels net generation (lignite and hard coal, gas, oil, mixed fuels, peat)	1 057.1
Renewable net generation (renewable hydro, wind, solar, biomass, geothermal)	1 035.8
Thermal nuclear net generation	808.2
Hydro net generation (except renewable part)	35.1
Net generation not identified	102.4



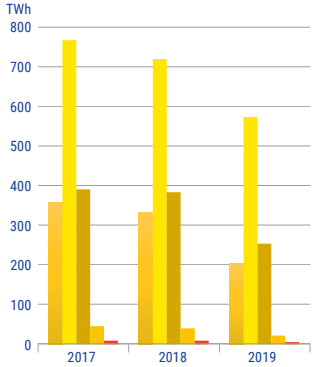
ENTSO-E renewable generation[1]

	Year	TWh	%
Renewable net generation	2017	1 226.5	
	2018	1 300.6	
	2019	**1 035.8**	
of which hydro	2017	562.5	46
	2018	615.6	47
	2019	**423.3**	**41**
of which wind	2017	370.9	30
	2018	379.7	29
	2019	**395.0**	**38**
of which biomass	2017	139.4	11
	2018	139.0	11
	2019	**92.2**	**9**
of which solar	2017	114.2	9
	2018	125.9	10
	2019	**113.5**	**11**
of which other renewable	2017	39.5	3
	2018	40.4	3
	2019	**11.7**	**1**

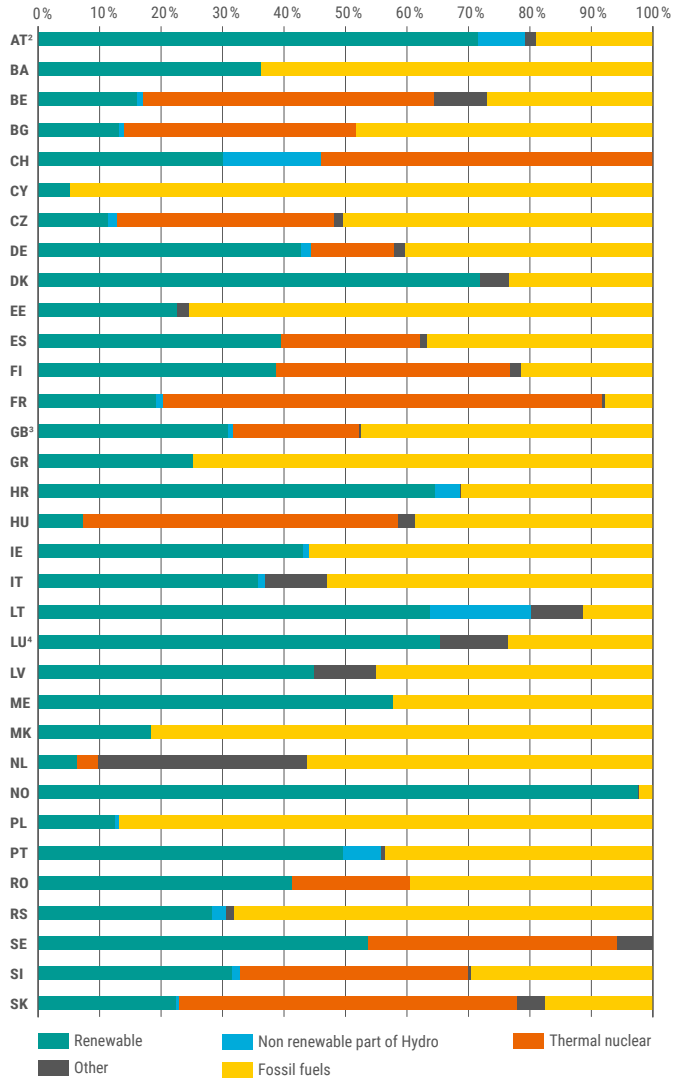


ENTSO-E fossil fuels generation[1]

	Year	TWh	%
Fossil fuels net generation	2017	1 567.8	
	2018	1 479.1	
	2019	**1 057.1**	
of which hard coal	2017	358.2	23
	2018	330.9	22
	2019	**203.2**	**19**
of which gas	2017	767.1	49
	2018	718.5	49
	2019	**572.9**	**54**
of which lignite	2017	389.4	25
	2018	382.0	26
	2019	**253.8**	**24**
of which oil	2017	44.6	3
	2018	39.5	3
	2019	**21.3**	**2**
of which other fuels	2017	8.5	0.5
	2018	8.2	0.6
	2019	**5.9**	**0.6**



Share of energy produced of each member TSOs 2019 in %[1]



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

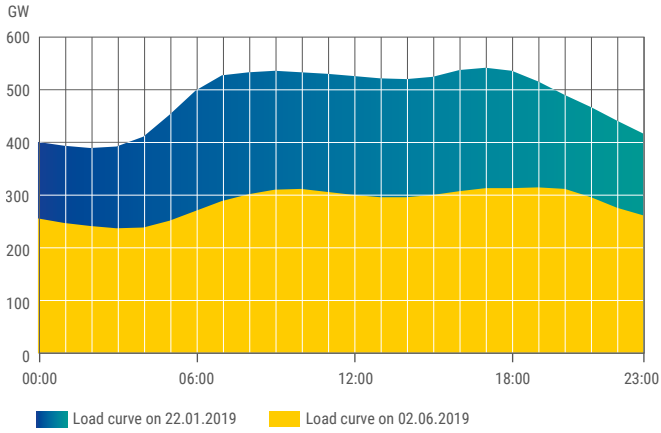
[2] All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).

[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).

ENTSO-E peak load 2019

2019 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]

	22.01.2019 18:00 – 19:00	02.06.2019 05:00 – 06:00		22.01.2019 18:00 – 19:00	02.06.2019 05:00 – 06:00		22.01.2019 18:00 – 19:00	02.06.2019 05:00 – 06:00
AT[3]	9 773	4 950	FI	13 545	7 524	ME	528	313
BA	1 621	1 142	FR	84 633	32 414	MK	1 189	460
BE	13 139	7 222	GB	50 407	19 524	NL	16 873	9 401
BG[4]	6 202	3 409	GR	8 458	4 650	NO	21 764	11 532
CH	9 609	6 382	HR	2 800	1 502	PL[6]	25 444	13 899
CY	694	447	HU	6 394	3 950	PT	8 264	4 022
CZ	10 400	5 498	IE	4 842	2 142	RO	8 969	5 295
DE	75 441	39 646	IT	46 645	20 822	RS	6 188	3 227
DK	4 984	2 818	LT	1 777	1 169	SE	22 587	11 480
EE	1 422	719	LU[5]	776	442	SI	2 216	1 279
ES	39 860	20 016	LV	1 074	661	SK	4 347	2 642
						ENTSO-E[7]	512 865	250 600

[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.

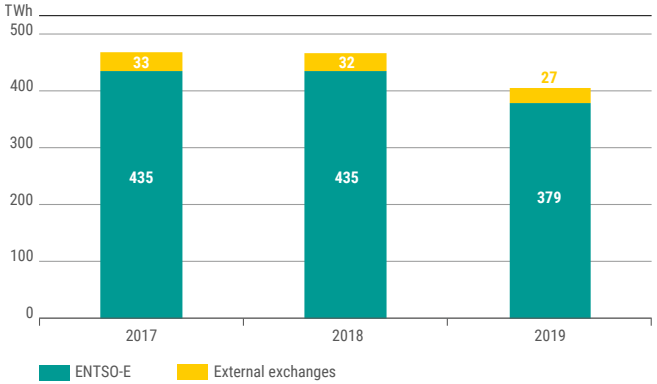
Highest and lowest hourly load values for 2019 in MW[1]

	HIGHEST LOAD		VALUE	LOWEST LOAD		VALUE
	Date	Time[2]	(in MW)	Date	Time[2]	(in MW)
AT[3]	12.12.19	16:00 – 17:00	10 779	04.08.19	02:00 – 03:00	4 176
BA	26.10.19	23:00 – 00:00	6 450	03.01.19	13:00 – 14:00	0
BE	22.01.19	17:00 – 18:00	13 616	29.09.19	02:00 – 03:00	6 491
BG[4]	08.01.19	16:00 – 17:00	7 111	03.04.19	01:00 – 02:00	1 803
CH	24.01.19	10:00 – 11:00	9 924	03.08.19	03:00 – 04:00	4 333
CY	30.08.19	13:00 – 14:00	878	24.11.19	01:00 – 02:00	144
CZ	23.01.19	08:00 – 09:00	10 901	04.08.19	03:00 – 04:00	4 471
DE	22.01.19	16:00 – 17:00	77 185	22.04.19	01:00 – 02:00	34 190
DK	04.11.19	07:00 – 08:00	6 750	01.05.19	16:00 – 17:00	1 693
EE	22.01.19	07:00 – 08:00	1 543	24.06.19	01:00 – 02:00	506
ES	22.01.19	19:00 – 20:00	40 107	26.12.19	03:00 – 04:00	17 168
FI	28.01.19	06:00 – 07:00	14 542	22.06.19	01:00 – 02:00	5 455
FR	24.01.19	18:00 – 19:00	86 341	11.08.19	04:00 – 05:00	31 183
GB	31.01.19	09:00 – 10:00	52 714	21.05.19	00:00 – 01:00	1 183
GR	09.07.19	10:00 – 11:00	9 701	29.04.19	03:00 – 04:00	3 344
HR	25.07.19	11:00 – 12:00	3 038	16.10.19	02:00 – 03:00	1 193
HU	05.12.19	15:00 – 16:00	6 791	22.04.19	01:00 – 02:00	3 192
IE	17.12.19	17:00 – 18:00	4 980	05.08.19	02:00 – 03:00	2 061
IT	25.07.19	14:00 – 15:00	53 824	26.12.19	02:00 – 03:00	17 014
LT	24.01.19	07:00 – 08:00	2 029	14.07.19	02:00 – 03:00	871
LU[5]	22.01.19	10:00 – 11:00	824	16.08.19	00:00 – 01:00	376
LV	28.01.19	07:00 – 08:00	1 198	07.07.19	02:00 – 03:00	468
ME	12.08.19	18:00 – 19:00	605	30.03.19	04:00 – 05:00	220
MK	09.01.19	13:00 – 14:00	1 423	16.05.19	03:00 – 04:00	192
NL	22.01.19	16:00 – 17:00	18 020	27.10.19	00:00 – 01:00	8 552
NO	31.01.19	16:00 – 17:00	23 672	11.08.19	03:00 – 04:00	9 217
PL[6]	24.01.19	16:00 – 17:00	26 136	22.04.19	03:00 – 04:00	11 400
PT	16.01.19	19:00 – 20:00	8 559	21.04.19	05:00 – 06:00	3 544
RO	08.01.19	16:00 – 17:00	9 443	29.04.19	03:00 – 04:00	4 485
RS	31.12.19	16:00 – 17:00	6 621	14.07.19	03:00 – 04:00	2 592
SE	30.01.19	07:00 – 08:00	25 103	06.09.19	15:00 – 16:00	5 065
SI	09.04.19	08:00 – 09:00	2 520	24.10.19	21:00 – 22:00	539
SK	23.01.19	08:00 – 09:00	4 599	04.03.19	07:00 – 08:00	0
UA	22.01.19	06:00 – 07:00	24 355	05.08.19	00:00 – 01:00	11 749

[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.

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]
2017	467 334	434 828	32 506
2018	467 102	434 893	32 209
2019	405 867	378 747	27 120

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

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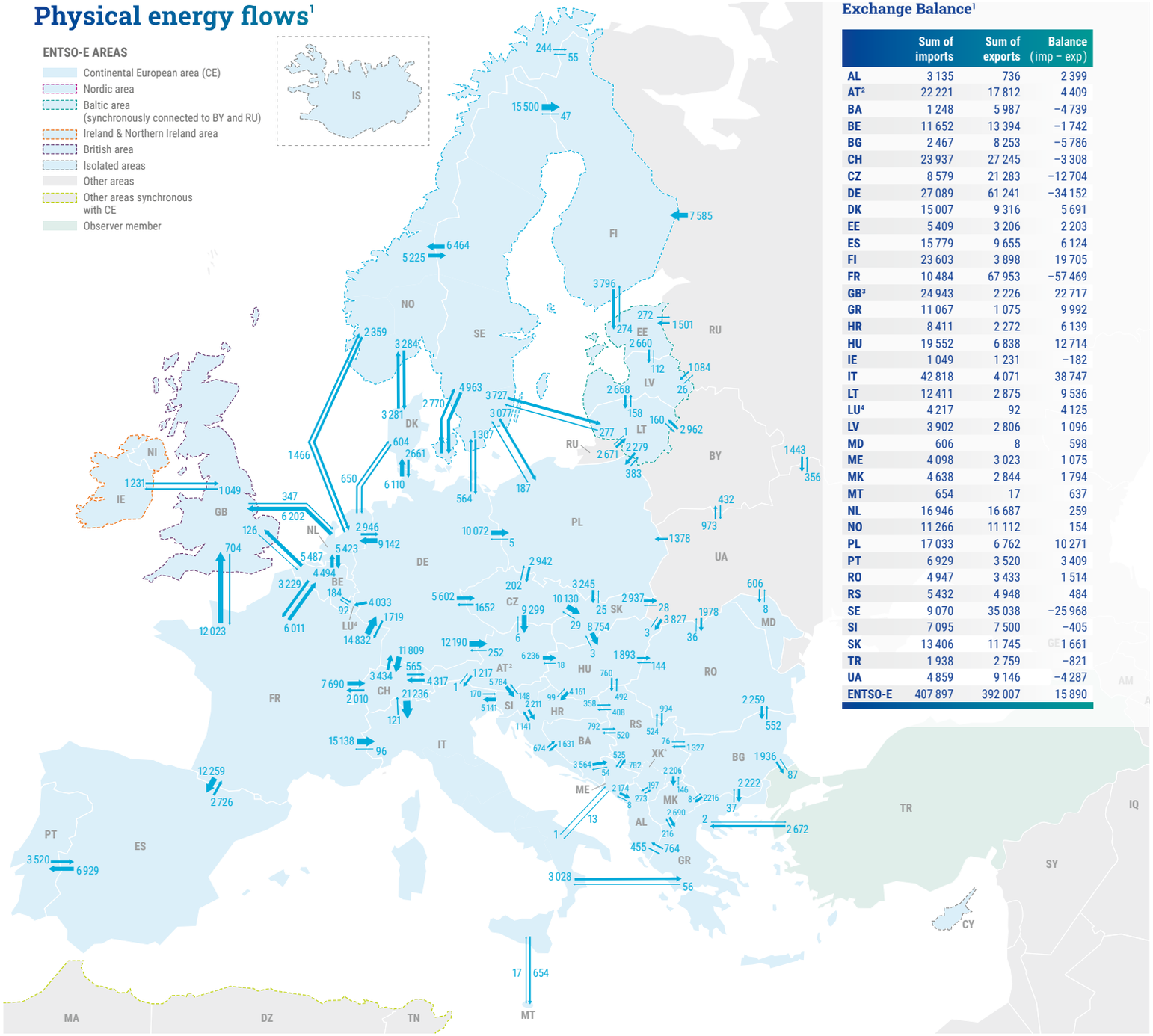
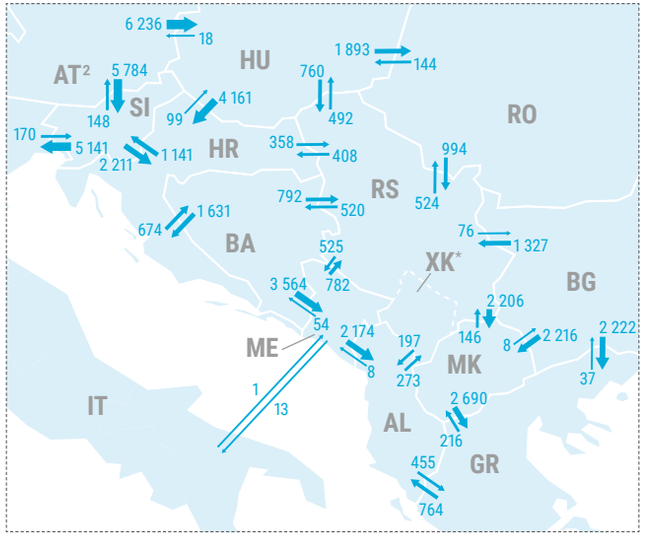
Physical energy flows[1]



Exchange Balance[1]

	Sum of imports	Sum of exports	Balance (imp – exp)
AL	3 135	736	2 399
AT[2]	22 221	17 812	4 409
BA	1 248	5 987	−4 739
BE	11 652	13 394	−1 742
BG	2 467	8 253	−5 786
CH	23 937	27 245	−3 308
CZ	8 579	21 283	−12 704
DE	27 089	61 241	−34 152
DK	15 007	9 316	5 691
EE	5 409	3 206	2 203
ES	15 779	9 655	6 124
FI	23 603	3 898	19 705
FR	10 484	67 953	−57 469
GB[3]	24 943	2 226	22 717
GR	11 067	1 075	9 992
HR	8 411	2 272	6 139
HU	19 552	6 838	12 714
IE	1 049	1 231	−182
IT	42 818	4 071	38 747
LT	12 411	2 875	9 536
LU[4]	4 217	92	4 125
LV	3 902	2 806	1 096
MD	606	8	598
ME	4 098	3 023	1 075
MK	4 638	2 844	1 794
MT	654	17	637
NL	16 946	16 687	259
NO	11 266	11 112	154
PL	17 033	6 762	10 271
PT	6 929	3 520	3 409
RO	4 947	3 433	1 514
RS	5 432	4 948	484
SE	9 070	35 038	−25 968
SI	7 095	7 500	−405
SK	13 406	11 745	1 661
TR	1 938	2 759	−821
UA	4 859	9 146	−4 287
ENTSO-E	407 897	392 007	15 890

Map section of the Balkans



[1] Hourly netted physical flow values meansured in GWh.

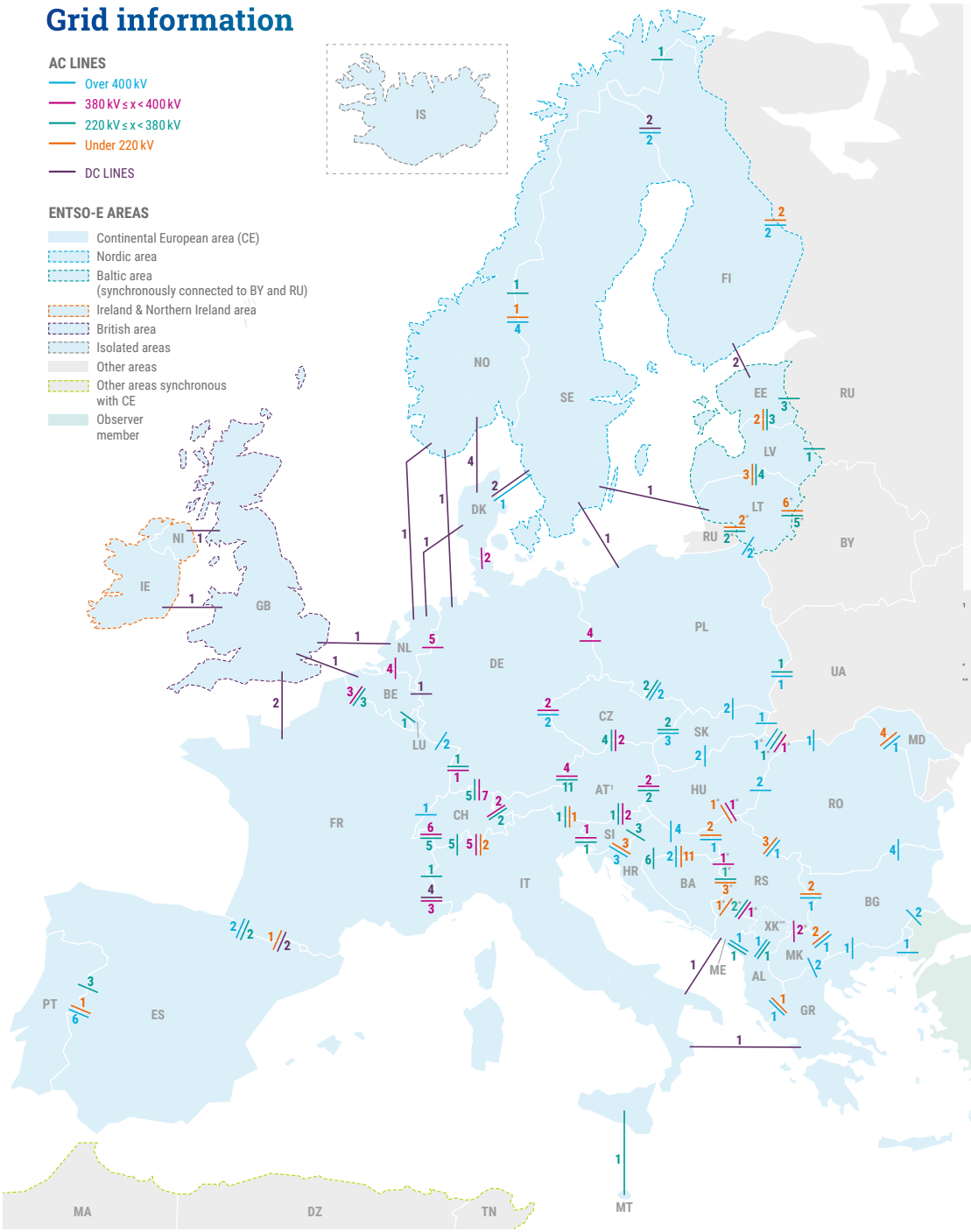
[2] All values from Transparency Platform for Austria are for the control area AT and not the country AT (some power plants and lines located in Austria are part of the German control areas TenneT DE and TransnetBW).

[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



Number of cross-frontier transmission lines (routes) operated by TSO as of 31.12.2019[1]

ENTSO-E overview circuit length in km as of 31.12.2019*

	AC lines	AC cables	DC cables
Over 400 kV	385	–	–
380 kV ≤ x < 400 kV	179 128	1 084	5 993
220 kV ≤ x < 380 kV	130 331	5 636	3 190
110 kV ≤ x < 220 kV	182 088	–	2 081
Sum	491 932	6 720	11 265

Cross-Frontier Lines per voltage and current type as of 31.12.2019**

	AC	DC
Over 400 kV	66	10
380 kV ≤ x < 400 kV	61	2
220 kV ≤ x < 380 kV	89	9
Under 220 kV	54	11
Sum	270	32

[1] Non geographic location of lines.
* 2018 data for BA, CY, DK, GB, HU, IS, RS, TR.
** 2018 data for the borders between MK, RS, ME, BA, HU & UA, the borders of TR with AZ, GE, IQ, IR & SY, and the borders of LT with BY and RU.

[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).
* Data from 2018
** 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.

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LT	Lithuania	Litgrid	Litgrid AB
LU	Luxembourg	Creos Luxembourg	Creos Luxembourg S.A.
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NI	Northern Ireland	SONI	System Operator for Northern Ireland Ltd
NL	The Netherlands	TenneT NL	TenneT TSO B.V.
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PT	Portugal	REN	Rede Eléctrica Nacional, S.A.
RO	Romania	Transelectrica	C.N. Transelectrica S.A.
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SI	Slovenia	ELES	ELES, d.o.o.
SK	Slovak Republic	SEPS	Slovenská elektrizačná prenosová sústava, a.s.

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