

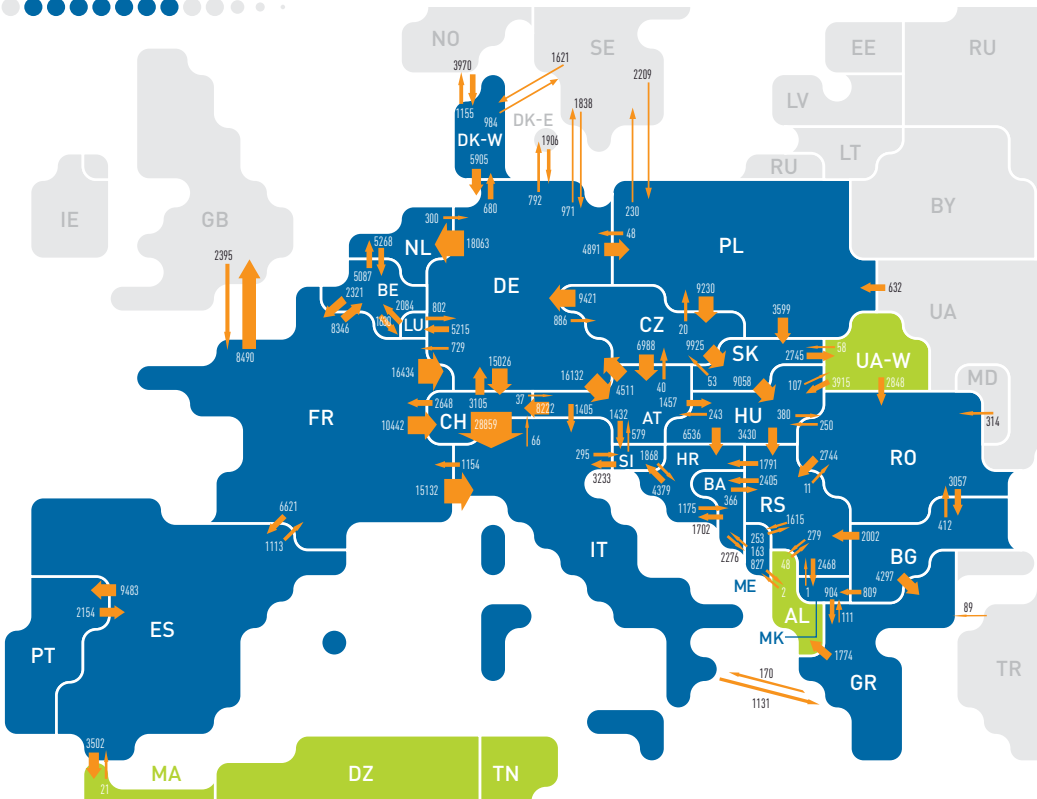


Memo 2007

provisional values as of 15 April 2008



UCTE 



	Import	Export
AT	23 979	17 067
BA	3 743	4 344
BE	15 698	9 038
BG	3 057	7 520
CH	33 756	34 649
CZ	10 209	26 354
DE	44 270	63 385
DK_W	6 271	8 044
ES	8 796	14 098
FR	10 360	65 465
GR	6 421	2 055
HR	11 897	5 554
HU	14 680	10 696
IT	48 799	2 646
LU	6 845	2 886
ME	3 893	1 243
MK	3 388	905
NL	23 150	5 568
PL	7 752	13 107
PT	9 483	2 154
RO	3 965	6 051
RS	8 844	8 569
SI	6 106	5 680
SK	13 582	11 856
UCTE¹	326 215	325 257
UA_W	2 852	6 821

Values in GWh

■ UCTE region

■ Synchronous operation with UCTE region

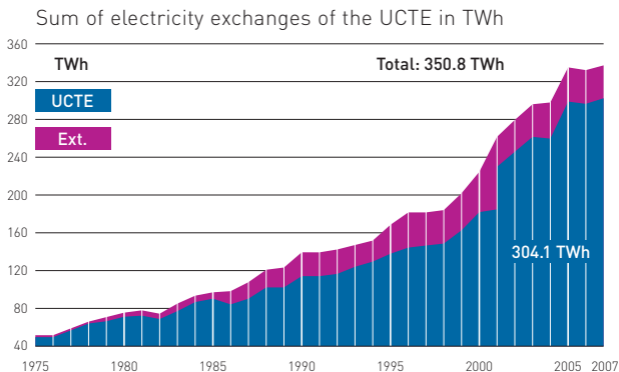
Exchange balance

	AT	BA	BE	BG	CH	CZ	DE	DK_W	ES	FR	GR	HR	HU	IT	LU	ME ²	MK	NL	PL	PT	RO	RS ²	SI	SK	UCTE¹	UA_W
2007	6 912	-601	6 660	-4 463	-893	-16 145	-19 115	-1 773	-5 302	-55 105	4 366	6 343	3 984	46 153	3 959	2 650	2 483	17 582	-5 355	7 329	-2 086	275	426	1 726	958	-3 969
2006	7 265	-2 108	10 032	-7 737	3 702	-12 629	-19 772	-4 497	-2 739	-61 789	4 215	5 672	7 214	44 907	3 545		1 796	21 469	-11 006	5 298	-4 249	229	-1 600	-6 335	-4 061	

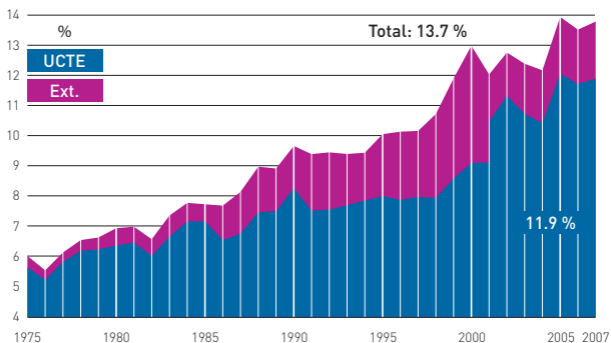
The above values have been harmonized between the countries concerned and may therefore differ from the official national statistics

¹From June 2007 UCTE import, export and balance include DK_W ²Exchange balance year 2006 as Serbia-Montenegro with the value of 1950 GWh

Development of exchanges



Part of exchanges in the consumption in %



From year 2001 sum of exchanges include CENTREL countries CZ, HU, PL, SK

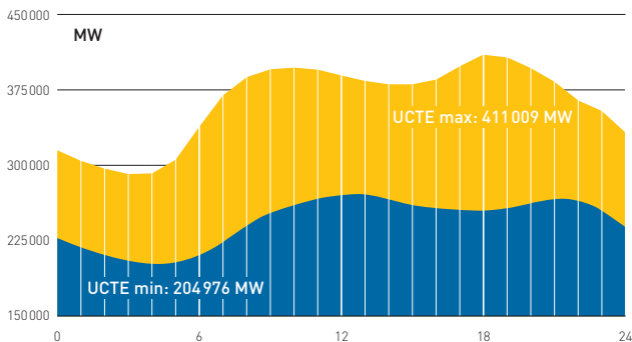
From year 2003 sum of exchanges include RO and BG

From June 2007 sum of exchanges UCTE include DK_W

Ext. = exchanges with third countries

Consumption on the 3rd Wednesday 2007


UCTE min/max load diagrams on 3rd Wednesday 2007¹



Min/Max load of each country on 3rd Wednesday 2007 in MW¹

	lowest value	highest value
AT	4 317	9 265
BA	887	1 974
BE	7 508	13 789
BG	3 066	6 839
CH	4 866	9 951
CZ	5 808	10 031
DE	47 184	82 787
DK_W	1 637	3 713
ES	20 946	43 352
FR	33 821	87 897
GR	4 267	9 771
HR	1 282	3 036
HU	3 871	6 540

	lowest value	highest value
IT	23 280	55 883
LU	512	1 022
ME	360	695
MK	610	1 556
NL	8 829	17 840
PL	10 805	22 601
PT	4 051	9 130
RO	5 015	8 681
RS	2 523	6 534
SI	1 151	2 173
SK	2 598	4 416
UCTE	204 976	411 009
UA_W	401	917

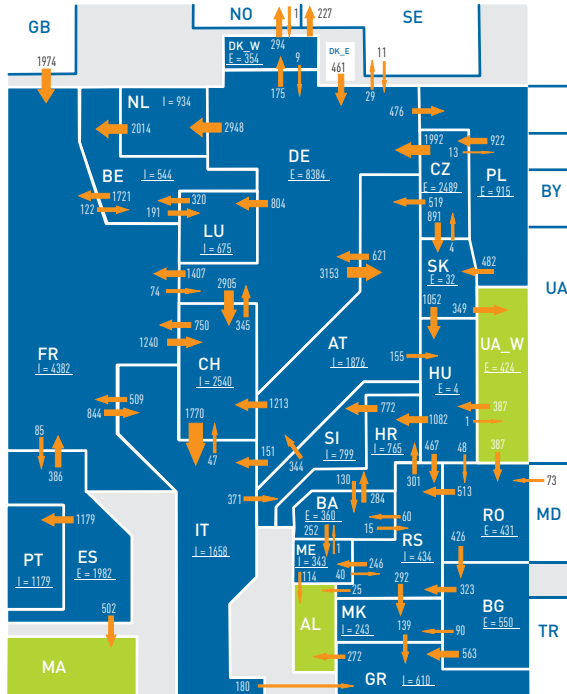
 UCTE as of 15.08.2007

 UCTE as of 19.12.2007

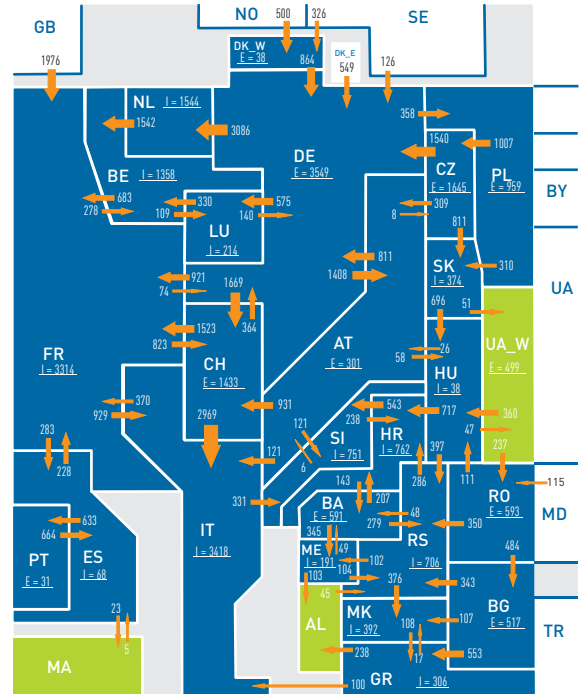
¹ Values are calculated to represent 100 % of the national values

Load flows **night** 19 December 2007, 3.00 h¹

Load flows **day** 19 December 2007, 11.00 h¹



Values in MW



Values in MW

¹ CET (Central European Time)

I = Import balance

E = Export balance

Sum of physical power flows:

UCTE = 38 428 MW
Total = 43 535 MW

Sum of physical power flows:

UCTE = 33 916 MW
Total = 38 617 MW

Countries	AT	BA	BE	BG	CH ³	CZ	DE	DK_W ⁴	ES	FR	GR	HR ³	HU	IT	LU	ME	MK	NL	PL	PT ³	RO	RS	SI	SK	UCTE ⁵	UA_W ⁶	
Net production¹																											
Thermal nuclear	TWh	0.0	0.0	45.9	13.6	26.3	24.6	133.2	0.0	52.7	418.6	0.0	0.0	13.8	0.0	0.0	0.0	0.0	4.0	0.0	0.0	7.1	0.0	5.4	14.2	759.4	0.0
Thermal conventional	TWh	21.0	7.8	33.7	22.1	2.1	54.0	366.0	16.4	162.4	55.0	47.6	6.7	21.8	253.5	2.9	0.8	87.4	145.1	28.4	33.7	29.0	4.8	7.1	1 407.3	8.1	
Hydroproduction	TWh	34.8	4.0	1.7	2.4	36.4	2.5	24.4	0.0	29.9	63.2	3.4	4.4	0.2	38.5	0.9	1.3	1.1	0.0	2.7	10.2	15.6	9.9	2.8	4.5	294.7	0.1
Other renewable	TWh	0.0	0.0	3.6	0.0	1.1	0.3	60.4	7.1	32.7	7.9	1.5	0.0	1.5	9.3	0.1	0.0	0.0	8.0	0.6	6.1	0.0	0.0	0.0	0.3	137.2	0.0
of which wind power	TWh	0.0	0.0	0.5	0.0	0.0	0.1	39.5	5.6	26.6	4.0	1.3	0.0	0.1	4.1	0.1	0.0	0.0	3.4	0.5	4.0	0.0	0.0	0.0	0.0	87.2	0.0
Not clearly identifiable	TWh	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
Total net production	TWh	63.8	11.8	84.9	38.2	65.9	81.4	584.0	23.6	277.7	544.7	52.5	11.1	37.3	301.3	3.9	2.1	6.1	99.4	148.4	44.7	56.4	38.9	13.1	26.1	2 606.6	8.2

Consumption¹																											
Consumption	TWh	67.4	11.2	89.9	33.1	61.9	64.7	555.9	21.8	268.0	480.3	55.7	12.4	41.3	339.8	6.8	4.7	8.6	117.0	142.2	51.6	54.1	39.9	13.4	27.6	2 564.9	4.3
Variation ⁷	%	1.4	0.6	-0.5	-7.1	-0.4	0.6	-0.6	0.3	3.2	0.4	3.1	3.4	1.6	0.6	2.4	n.a.	2.3	0.7	4.2	1.8	2.1	n.a.	0.9	1.4	1.4	-1.3

Highest load on 3rd Wednesday of December 2007¹																											
Highest load	MW	9 265	1 974	1 3789	6 839	9 951	10 031	80 819	3 713	43 352	87 897	8 951	3 036	6 540	55 196	878	695	1 556	16 614	22 601	9 130	8 681	6 534	2 168	4 416	411 009	890
Variation ⁷	%	0.5	8.1	3.0	13.4	5.4	4.9	0.7	5.8	1.4	8.6	10.5	7.8	5.8	2.9	-4.7	n.a.	12.4	-7.0	2.7	0.9	8.9	n.a.	0.1	3.8	4.9	-3.6

Maximum output capacity as of 31 December 2007²																												
Thermal nuclear	MW	0	0	5 825	2 000	3 220	3 537	20 300	0	7 458	63 260	0	0	1 799	0	0	0	0	485	0	0	1 300	0	696	2 200	112 080	0	
Thermal conventional	MW	6 254	1 957	8 226	5 800	340	10 542	70 500	5 173	44 208	24 085	8 049	1 691	5 360	69 100	490	190	907	18 911	29 818	6 681	8 995	5 524	1 260	2 767	336 828	2347	
Hydropower	MW	11 811	2 064	1 411	2 700	13 355	2 175	9 100	10	19 179	25 404	3 136	2 079	46	21 095	1 128	649	503	37	2 327	4 948	5 859	2 831	873	2 478	135 198	27	
Renewable energy sources	MW	849	0	861	9	330	163	28 400	2 499	13 438	3 130	784	10	485	3 371	69	9	0	2 588	318	1 988	7	0	0	63	59 371	0	
Not unambiguously identified energy sources																												
Total	MW	18 914	4 021	16 323	10 102	17 440	16 417	128 300	7 682	84 283	115 879	11 969	3 780	8 413	93 566	1 687	848	1 410	22 021	32 463	13 617	16 161	8 355	2 829	7 508	644 395	0	
Representativity of the values in %		100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100

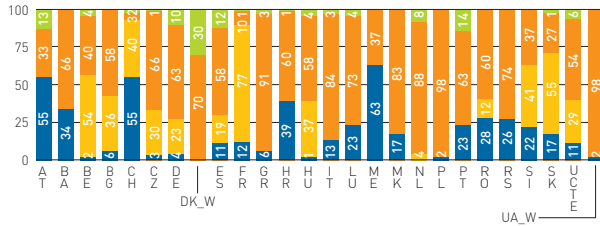
Number of 220 kV and 380 kV circuits on cross-frontier transmission lines on 31 December 2007

	CH	CZ	DE	DK_W	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	UA_W		
AT	2/2	2/1	11/3					2/1	1/-													
BA							7/2			2/1												
	BE				2/3					2/-			-/4									
	BG					-/1										1/4	-/1					
	CH	5/7			5/5				5/4													
	CZ	-/4												2/2						2/3		
	DE	2/2	2/4							8/-			-/6	2/2								
	ES		2/2		2/2											3/4						
	FR							3/3														
	GR							-/1				-/1										
	HR				-/2																	
	HU															-/1	-/1		2/3	-/2	2/2	
	IT																	1/1				
	ME																	2/1				
	MK																	2/1				
	PL																			-/2		
	RO																			-/1	-/2	
																					SK	-/1

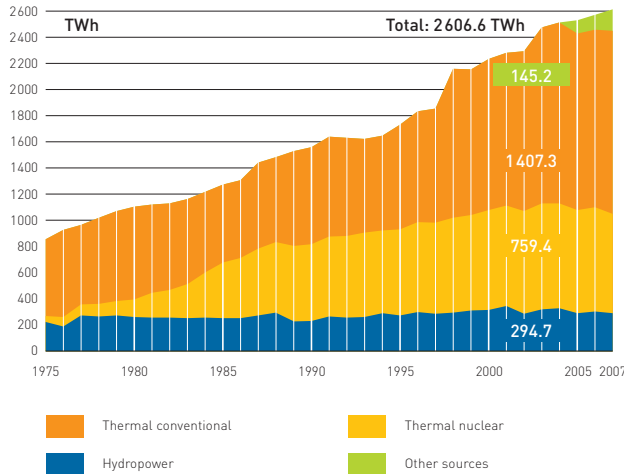
¹ All values are calculated to represent 100% of the national values² All values are identical with the national values and their representativity³ Maximum capacity as of 31 December 2006⁴ DK_W represents the Western part of Denmark synchronously interconnected with UCTE (Jutland and Funen)⁵ From June 2007 on including DK_W as full member of the UCTE⁶ UA_W represents the so-called Burshyn Island synchronously interconnected with UCTE⁷ As compared to last year and representativity 100%

Production

Structure of production in each country in %¹

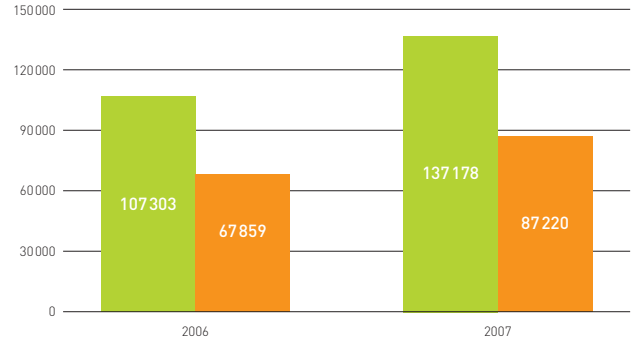


Net production history from 1975 to 2007 in TWh¹



UCTE Other renewable production

UCTE Production other renewable energy sources including wind power in the year 2006 and 2007 in GWh¹



	monthly	other renew	of which wind	monthly	other renew	of which wind
Jan. 06		9144	6082	Jan. 07	15358	11524
Feb. 06		8038	5103	Feb. 07	11429	7746
Mar. 06		10002	6732	Mar. 07	13160	9157
April 06		8220	5072	April 07	8842	4886
May 06		8855	5690	May 07	10580	6513
June 06		6461	3180	June 07	9159	5012
July 06		5918	2834	July 07	11216	6785
Aug. 06		8534	5208	Aug. 07	10433	5915
Sep. 06		7796	4548	Sep. 07	11230	6843
Oct. 06		10596	6836	Oct. 07	9330	4902
Nov. 06		11790	8159	Nov. 07	13470	9206
Dec. 06		11949	8415	Dec. 07	12971	8731
2006		107303	67859	2007	137178	87220

¹ All values are calculated to represent 100% of the national values

Austria	TIWAG-Netz VERBUND APG VKW-Netz AG	TIWAG-Netz AG Verbund - Austrian Power Grid AG VKW-Netz AG
Belgium	Elia	Elia System Operator SA/NV
Bosnia-Herzegovina	ISO BiH	Nezavisni operator sustava u Bosni i Hercegovini
Bulgaria	ESO-EAD	Electroenergien Sistemen Operator EAD
Croatia	HEP-OPS	HEP-Operator prijenosnog sustava d.o.o.
Czech Republic	CEPS	CEPS, a.s
Denmark West	Energinet.dk	Energinet.dk
France	RTE	RTE EDF Transport S.A.
FYROM	MEPSO	Macedonian Transmission System Operator
Germany	EnBW TNG E.ON Netz RWE TSO VE Transmission	EnBW Transportnetz AG E.ON Netz GmbH RWE Transportnetz Strom GmbH Vattenfall Europe Transmission GmbH
Greece	HTSO/DESMIE	Hellenic Transmission System Operator/ Diachristis Elinikou Sistimatos Metaforas Ilectrikis Energias
Hungary	MAVIR ZRt.	MAVIR Magyar Villamosenergia-igari Atviteli Rendszerirányító Zártkörűen Működő Részvénytársaság
Italy	Terna S.p.A.	Terna - Rete Elettrica Nazionale SpA
Luxembourg	CEGEDEL Net S.A.	Compagnie Grand Ducale d' Electricité du Luxembourg
The Netherlands	TenneT	TenneT TSO B.V.
Poland	PSE - Operator	PSE - Operator S.A.
Portugal	REN	Rede Eléctrica Nacional, S.A.
Romania	Transelectrica	C.N. Transelectrica S.A.
Serbia	JP EMS	JP Elektromreža Srbije
Montenegro	EPCG	Elektroprivreda Crne Gore
Slovak Republic	SEPS	Slovenská elektrizačná prenosová sústava, a. s.
Slovenia	ELES	Elektro Slovenija
Spain	REE	Red Eléctrica de España S.A.
Switzerland	swissgrid	swissgrid ag

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The »Union for the Co-ordination of Transmission of Electricity« (UCTE) is an association of transmission system operators in continental Europe, providing a reliable market base by efficient and secure electrical »power highways«. The interconnected system ensures the technical condition for the reliable operation, and provides benefit for all market participants because TSOs guarantee market access.

For more than fifty years UCTE has been coordinating by a variety of technical rules and recommendations the international operation of high voltage grids that all work with one »heart beat«: the 50 Hz UCTE frequency. UCTE is committed to the development of the system to meet all new market requirements keeping a high reliability of the system. The UCTE network brings a safe electricity supply for some 500 million people. Therefore UCTE handles one of the biggest electrical synchronous interconnections worldwide. This technical solution provides the possibility of the free market operation.

The members of UCTE are the companies responsible for synchronous frequency system interconnection in **Belgium, Germany, Spain, France, Greece, Italy, Slovenia, Croatia, Serbia, Montenegro, Bosnia-Herzegovina, the FYROM, Luxembourg, The Netherlands, Austria, Portugal, Switzerland, Poland, the Slovak Republic, the Czech Republic, Hungary, Romania and Bulgaria**. Since June 2007, the system operator of **Denmark** has been member of the UCTE.

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