

# UCTE



## September 2005

Monthly provisional values

union for the co-ordination of transmission of electricity

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<sup>1</sup> Monthly provisional values from the UCTE database as of 21 December 2005

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

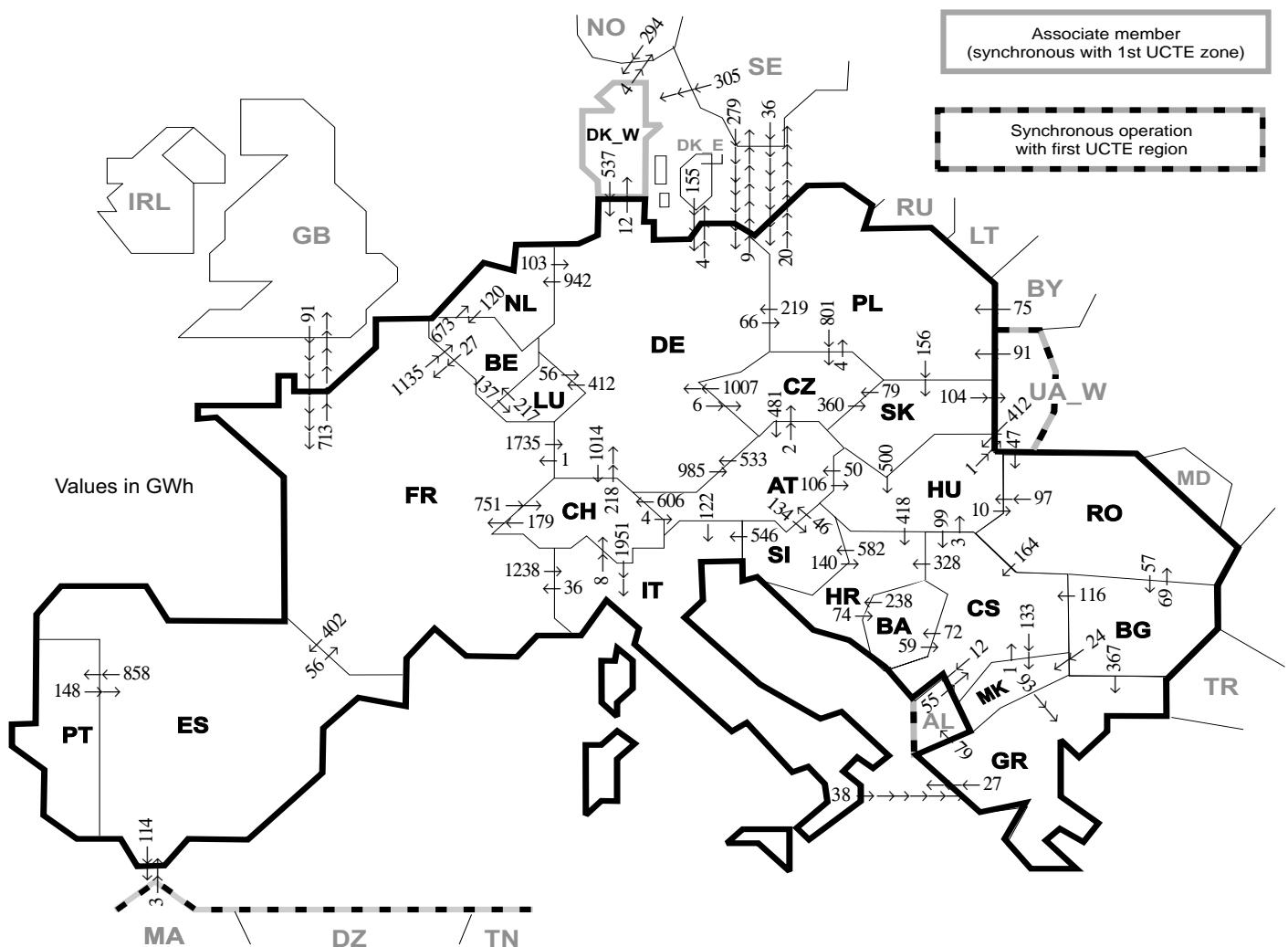
Coun- tries	Net production in GWh							Exchange balance in GWh	Pump monthly	Consumption in GWh			
	Therm. nuclear	Fossil fuel	Hydro prod	Other renew.	Of which	Not iden- tify	Total			var. [%]	last 12 months	var. [%]	
AT	0	1667	3159	0	0	425	5251 <sup>1</sup>	26	265	5012	-4,4	63436	-3,5
BA	0	672	317	0	0	0	989	-165	0	824	3,5	11113	-2,6
BE	3342	2782	111	155	9	0	6390 <sup>1</sup>	635	140	6885	-2,6	87406	-0,6
BG	1225	1673	247	0	0	0	3145	-524	47	2574	3,1	35533	-0,4
CH	2099	170	2808	72	0	0	5149 <sup>1</sup>	39	274	4914	5,8	62402	3,9
CS	0	2087	911	0	0	0	2998 <sup>1</sup>	-56	92	2850	0,4	41352	0,0
CZ	1532	3935	239	4	2	0	5710 <sup>1</sup>	-971	85	4654	1,9	62250	1,8
DE	12357	25755	1868	2479	1601	0	42459 <sup>1</sup>	1391	769	43081	0,0	557308	1,6
ES	5144	12075	1337	1765	1280	0	20321 <sup>1</sup>	-495	525	19301	-5,9	249561	0,4
FR	33418	2888	3849	296	55	0	40451	-5731	482	34238	-0,3	479202	1,1
GR	0	3542	302	69	56	0	3913 <sup>1</sup>	390	89	4214	2,1	52405	1,6
HR	0	416	397	2	1	0	815 <sup>1</sup>	454	14	1255	3,9	16335	2,9
HU	1035	1503	22	0	0	0	2560 <sup>1</sup>	540	0	3100	1,6	38543	0,9
IT	0	20517	3455	522	130	0	24494 <sup>1</sup>	3802	687	27609	0,0	327898	1,6
LU	0	272	59	6	3	0	337	276	80	533	2,1	6191	-2,5
MK	0	424	51	0	0	0	475 <sup>1</sup>	62	0	537	6,1	7853	7,0
NL	179	7172	0	426	103	0	7777 <sup>1</sup>	1392	0	9169	5,5	113717	2,9
PL	0	11077	234	0	0	0	11311 <sup>1</sup>	-926	188	10197	1,5	129709	-2,6
PT	0	2692	223	282	127	0	3197 <sup>1</sup>	725	39	3883	2,5	49117	3,9
RO	283	2228	1613	0	0	0	4124 <sup>1</sup>	-192	0	3932	2,4	51853	3,3
SI	480	289	309	0	0	0	1078	-18	0	1060	2,0	13034	-2,3
SK	1293	399	268	0	0	183	2143 <sup>1</sup>	-168	15	1960	-1,7	26148	-1,5
UCTE	62387	104235	21779	6078	3367	608	195087 <sup>1</sup>	486	3791	191782	-0,1	2482366	1,0
DK_W	0	1199	1	425	304	0	1625 <sup>1</sup>	70	0	1695	0,6	21234	n.a.
UA_W <sup>2</sup>	0	608	6	0	0	0	614 <sup>1</sup>	-354	0	260	-18,5	4396	1,1

<sup>1</sup> Including deliveries from industry

<sup>2</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

All representativities of the national production and consumption values used to calculate values at a representativity of 100% as stated in the table above

Countries	AT	BA	BE	BG	CH	CS	CZ	DE	ES	FR	GR	HR	HU	IT	LU	MK	NL	PL	PT	RO	SI	SK	DK_W	UA_W <sup>2</sup>
Production																								
Therm.nuclear	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Fossil fuel	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Hydro prod	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	
Other renew.	n.a.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	n.a.	100	99	100	n.a.	100	100	100	
Not identify	n.a.	100	100	100	100	100	100	100	100	100	100	100	100	100	n.a.	100	100	n.a.	100	100	100	100	100	
Consumption	100	100	100	100	100	100	100	100	98	100	100	100	100	100	99	100	100	100	97	100	95	100	100	



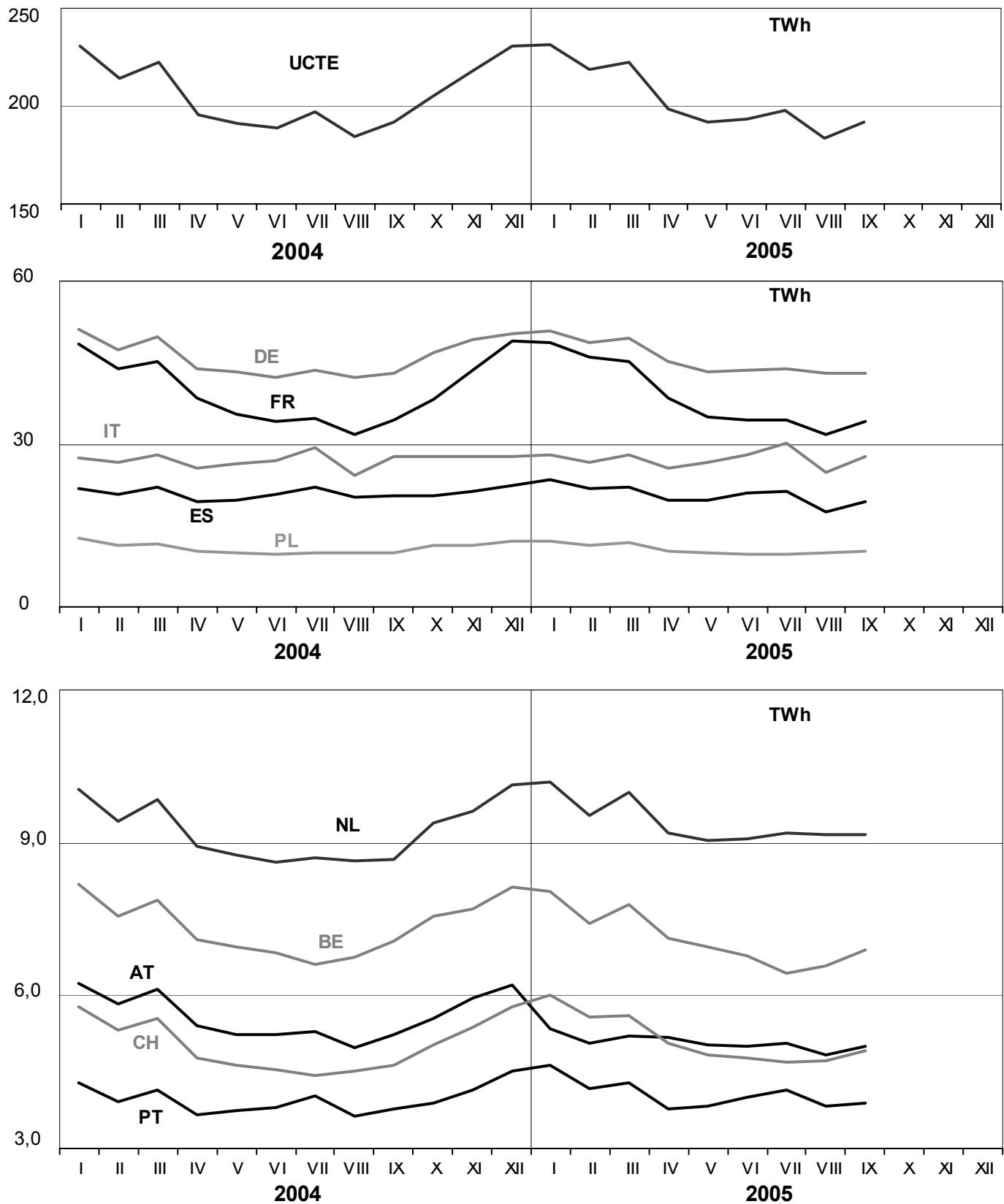
Exporting countries	Importing countries																		Sum export							
	AT	BA	BE	BG	CH	CS	CZ	DE	ES	FR	GR	HR	HU	IT	LU	MK	NL	PL	PT	RO	SI	SK	DK_W	UA_W <sup>2</sup>	Other III <sup>1</sup>	
AT	-	-	-	-	606	-	2	533	-	-	-	106	122	-	-	-	-	-	134	-	-	-	-	1503		
BA	-	-	-	-	-	59	-	-	-	-	-	238	-	-	-	-	-	-	-	-	-	-	-	297		
BE	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	137	-	673	-	-	-	-	-	837		
BG	-	-	-	-	-	116	-	-	-	-	367	-	-	-	-	24	-	-	69	-	-	-	-	0	576	
CH	4	-	-	-	-	-	-	218	-	179	-	-	1951	-	-	-	-	-	-	-	-	-	-	-	2352	
CS	-	72	-	0	-	-	-	-	-	-	328	3	-	-	133	-	-	0	-	-	-	-	-	12	548	
CZ	481	-	-	-	-	-	-	1007	-	-	-	-	-	-	-	-	-	-	360	-	-	-	-	1852		
DE	985	-	-	-	1014	-	6	-	-	1	-	-	-	412	-	942	66	-	-	-	12	-	13	-	3451	
ES	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	858	-	-	-	-	-	114	1028	
FR	-	-	1135	-	751	-	-	1735	402	-	-	-	1238	-	-	-	-	-	-	-	-	-	-	713	5974	
GR	-	-	-	0	-	-	-	-	-	-	-	-	27	-	0	-	-	-	-	-	-	-	-	79	106	
HR	-	74	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	582	-	-	-	-	-	656	
HU	50	-	-	-	-	99	-	-	-	-	418	-	-	-	-	-	-	10	0	-	1	-	-	578		
IT	0	-	-	-	8	-	-	-	36	38	-	-	-	-	-	-	-	0	-	-	-	-	-	82		
LU	-	-	217	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273		
MK	-	-	-	-	0	1	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	94		
NL	-	-	120	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223		
PL	-	-	-	-	-	801	219	-	-	-	-	-	-	-	-	-	-	-	156	0	20	-	-	1196		
PT	-	-	-	-	-	-	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	148		
RO	-	-	-	57	-	164	-	-	-	97	-	-	-	-	-	-	-	-	0	0	-	-	-	318		
SI	46	-	-	-	-	-	-	-	140	-	546	-	-	-	-	-	-	-	-	-	-	-	-	732		
SK	-	-	-	-	-	-	79	-	-	-	500	-	-	-	0	-	-	-	104	-	-	-	-	683		
DK_W	-	-	-	-	-	-	537	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	541		
UA_W <sup>2</sup>	-	-	-	-	-	-	-	-	412	-	-	-	-	-	91	47	0	-	-	-	-	-	-	550		
Other III <sup>1</sup>	-	-	-	0	55	-	434	3	91	0	-	-	-	-	111	0	-	599	-	-	-	-	-	1293		
<b>Sum imp</b>	<b>1566</b>	<b>146</b>	<b>1472</b>	<b>57</b>	<b>2379</b>	<b>494</b>	<b>888</b>	<b>4842</b>	<b>553</b>	<b>390</b>	<b>498</b>	<b>1124</b>	<b>1118</b>	<b>3884</b>	<b>549</b>	<b>157</b>	<b>1615</b>	<b>272</b>	<b>858</b>	<b>126</b>	<b>716</b>	<b>516</b>	<b>611</b>	<b>105</b>	<b>955</b>	<b>25891</b>

Sum of physical energy flows between UCTE countries = 22439GWh

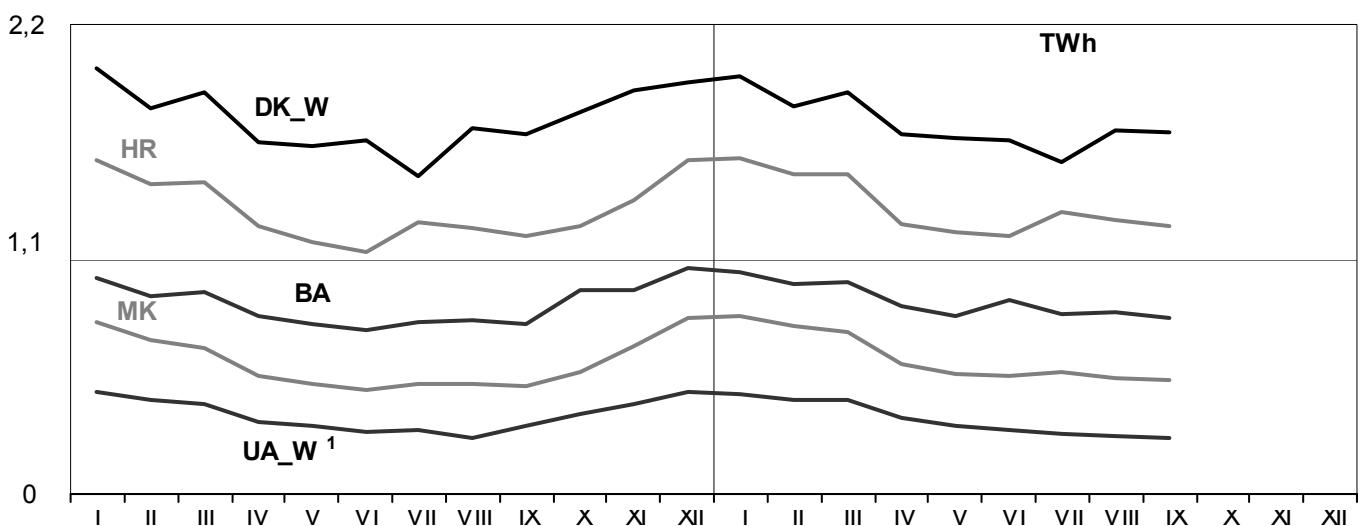
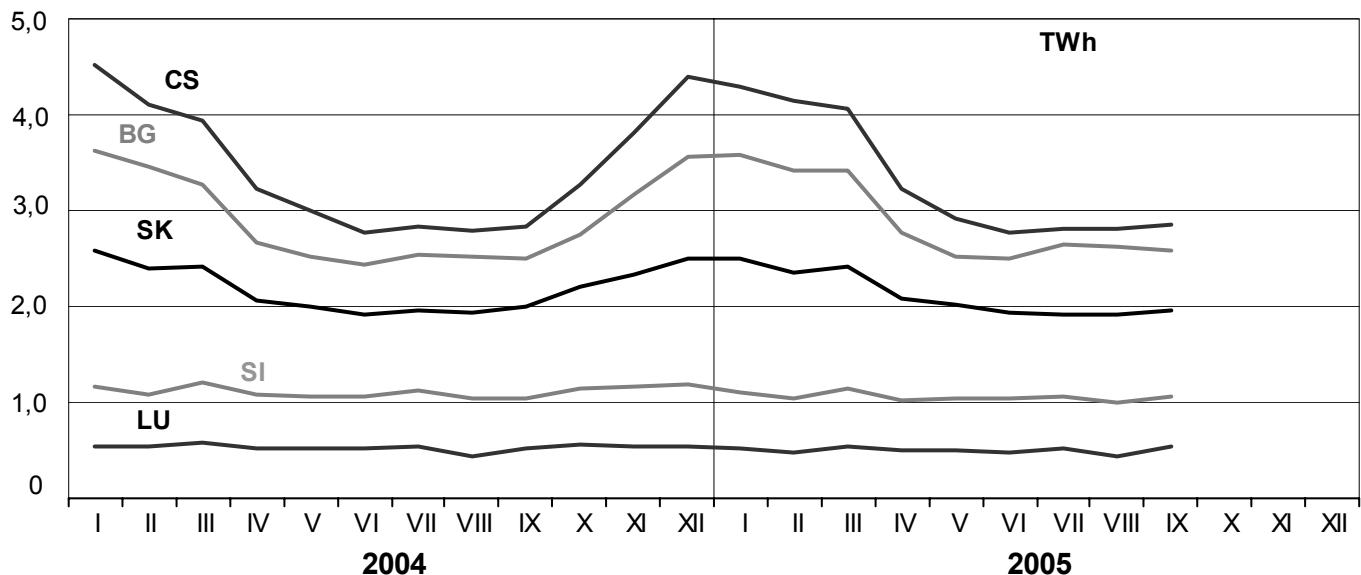
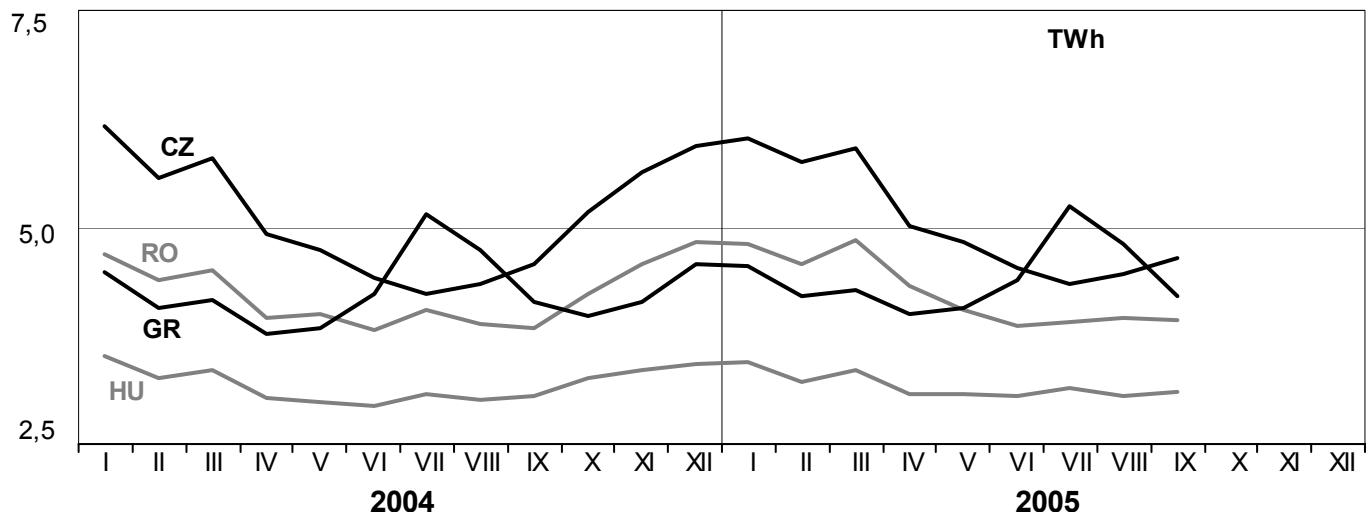
Total physical energy flows = 25891GWh

<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden and Republic of Turkey<sup>2</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTEThese physical energy flows were measured on the cross-frontier transmission lines ( $\leq 110$  kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

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

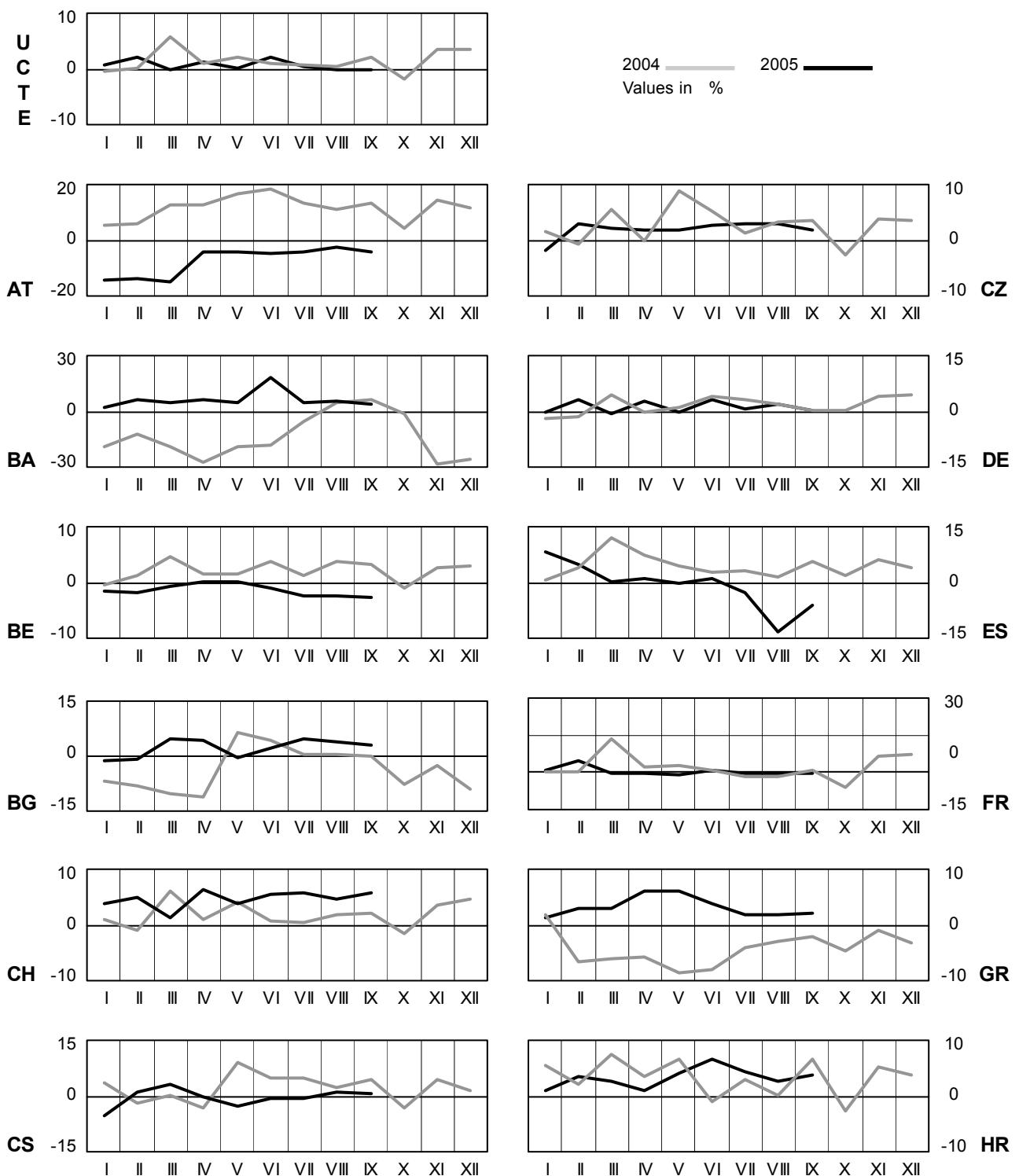


All values are calculated to represent 100% of the national values



<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

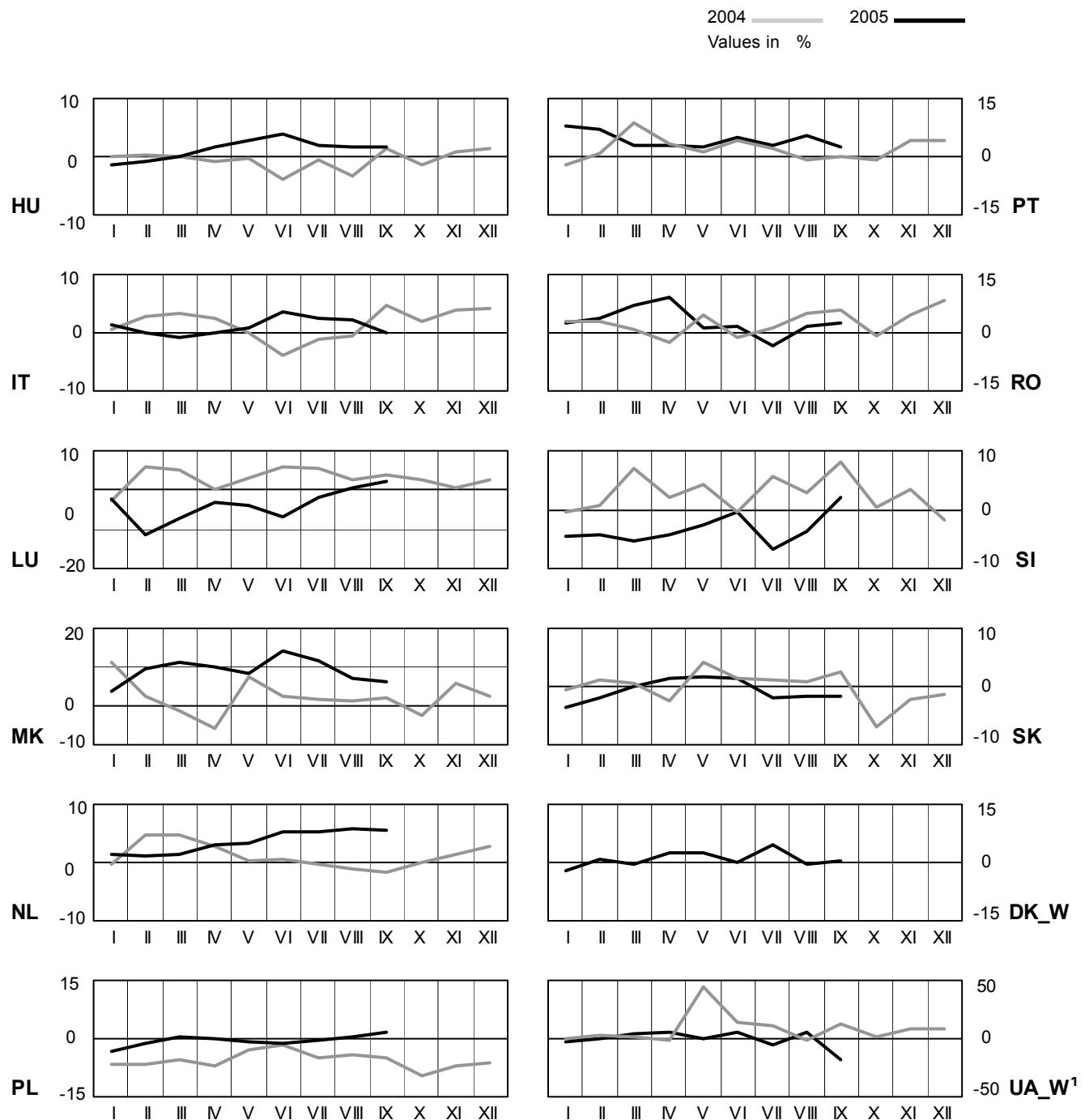
All values are calculated to represent 100% of the national values



# 4 Monthly consumption variation

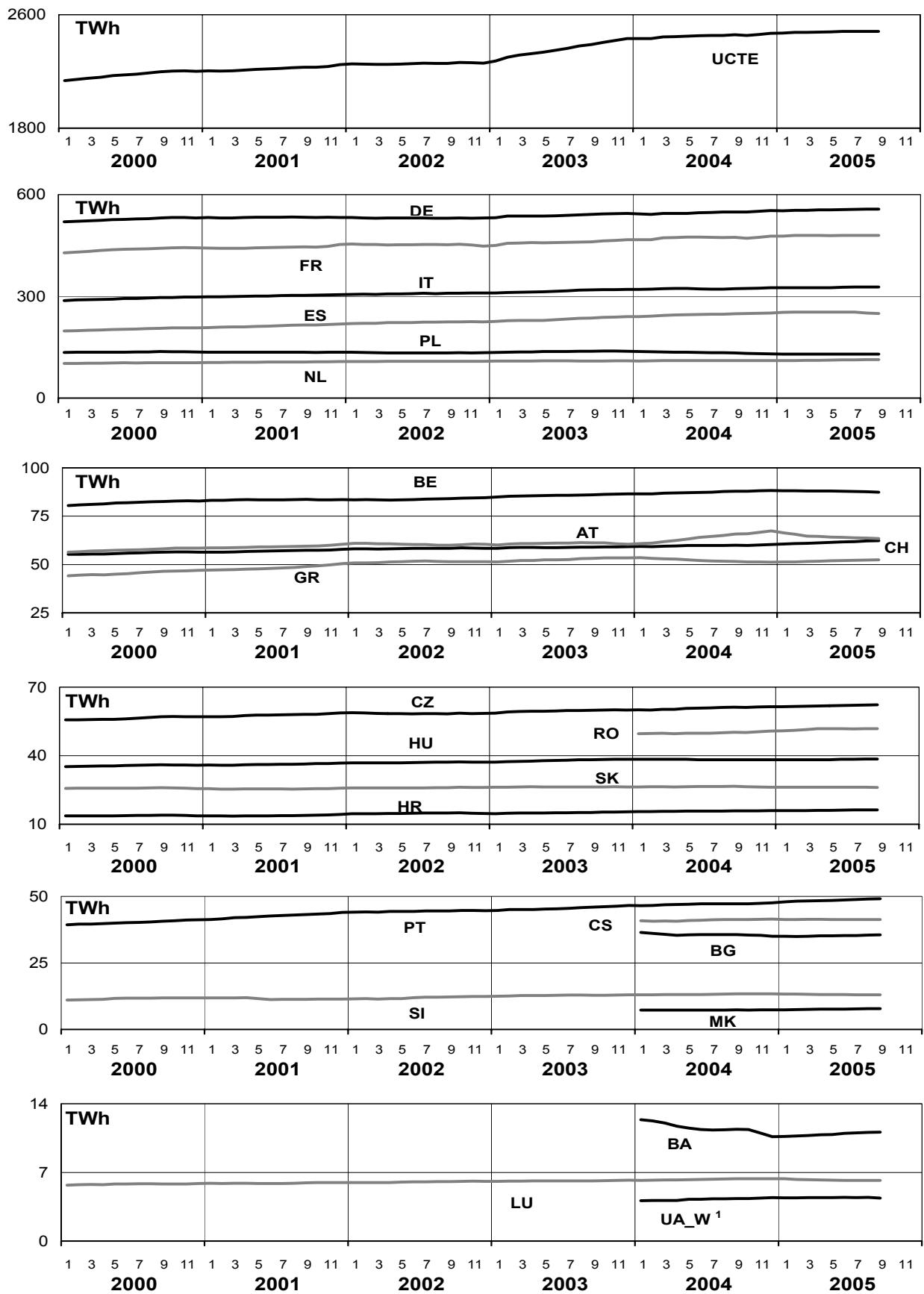
September 2005

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



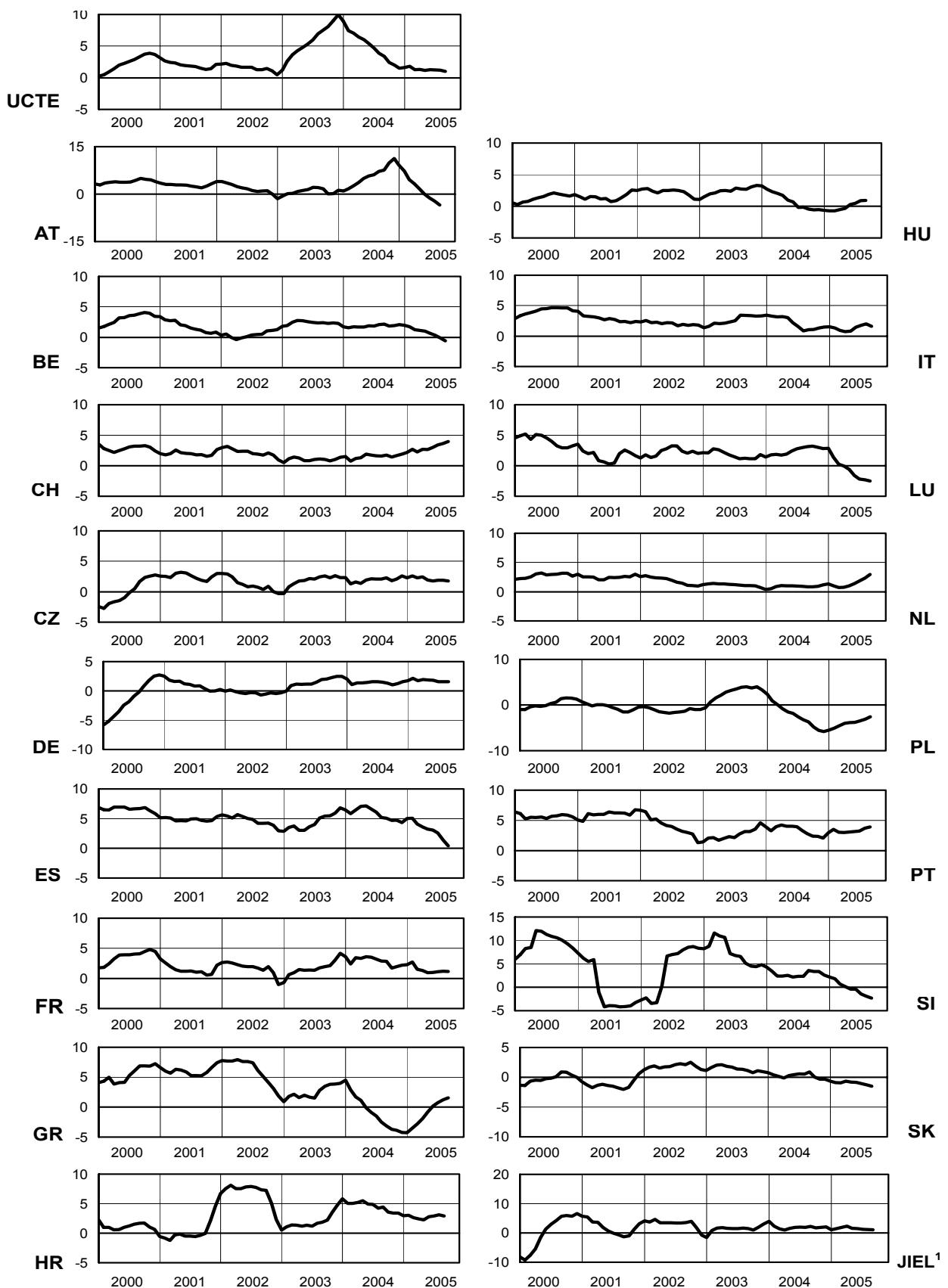
<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

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

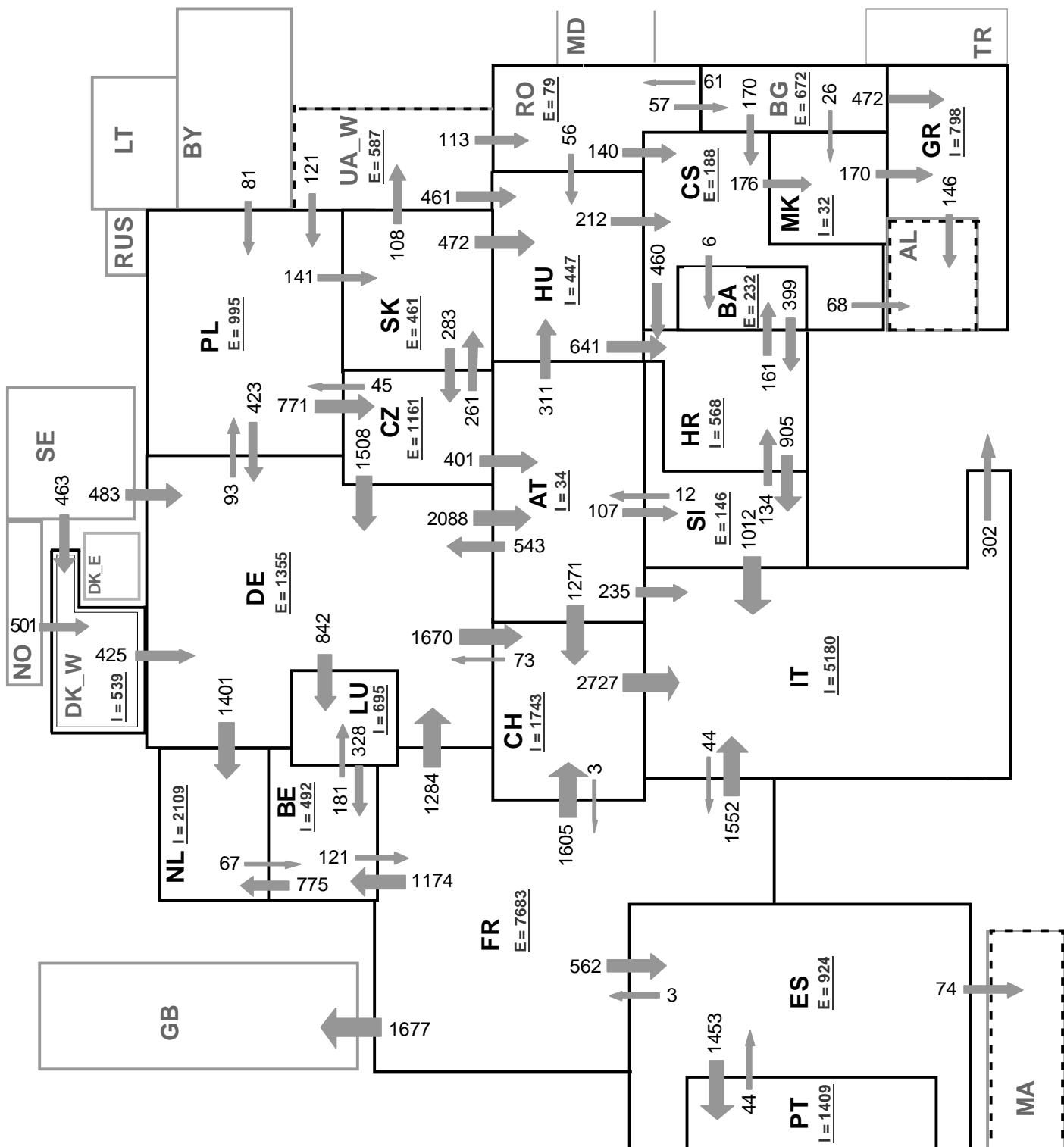


<sup>1</sup> UA\_W represents the so-called Burshynt Island synchronously interconnected with UCTE

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



<sup>1</sup> JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



Associate member

Sum of load flows in MW:

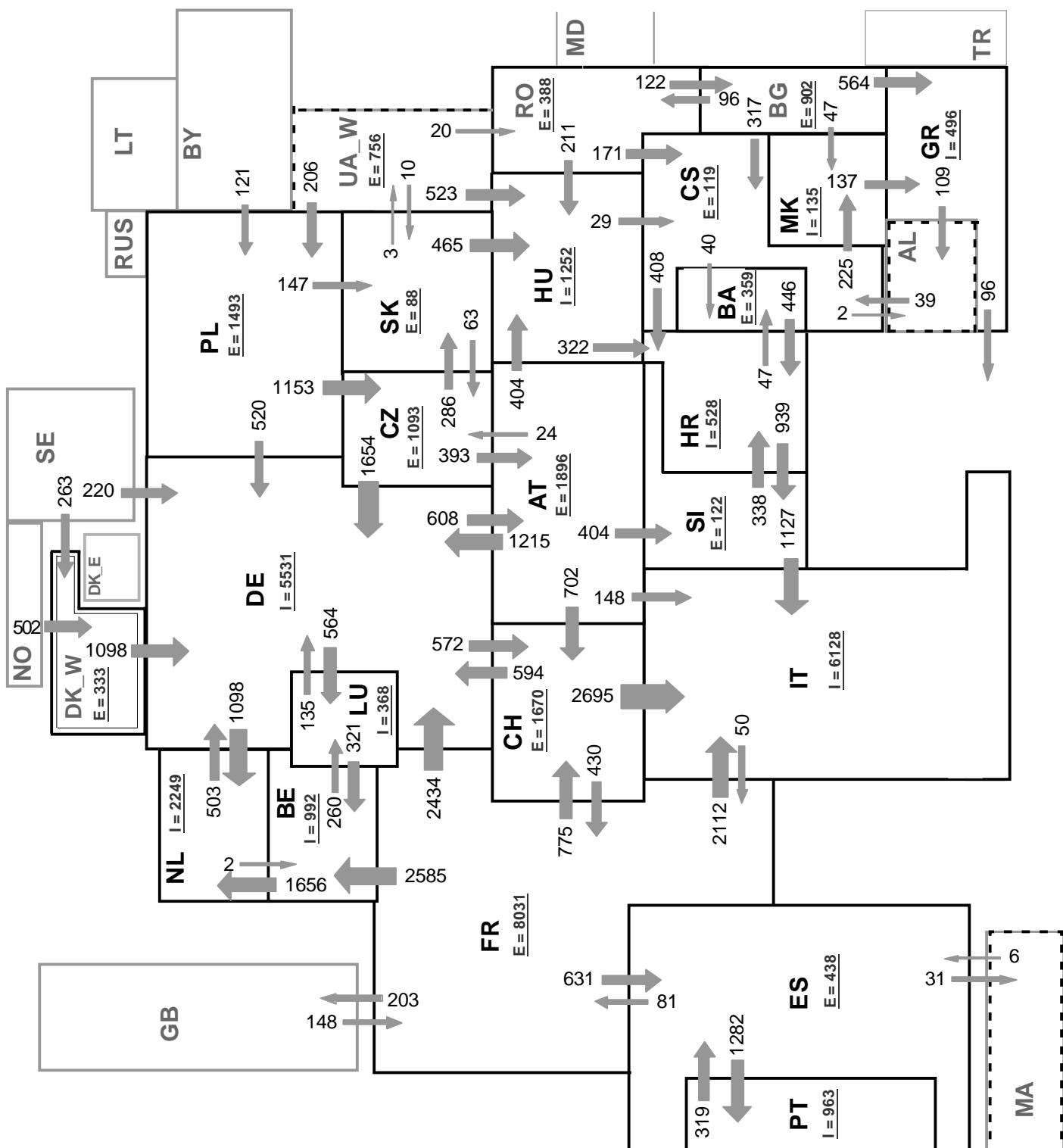
UCTE = 30434 MW      Total = 35155 MW

Synchronous operation with first region

\* Central European Time ( CET )

I = Import balance

E = Export balance



Associate member

Sum of load flows in MW:

UCTE = 32967 MW

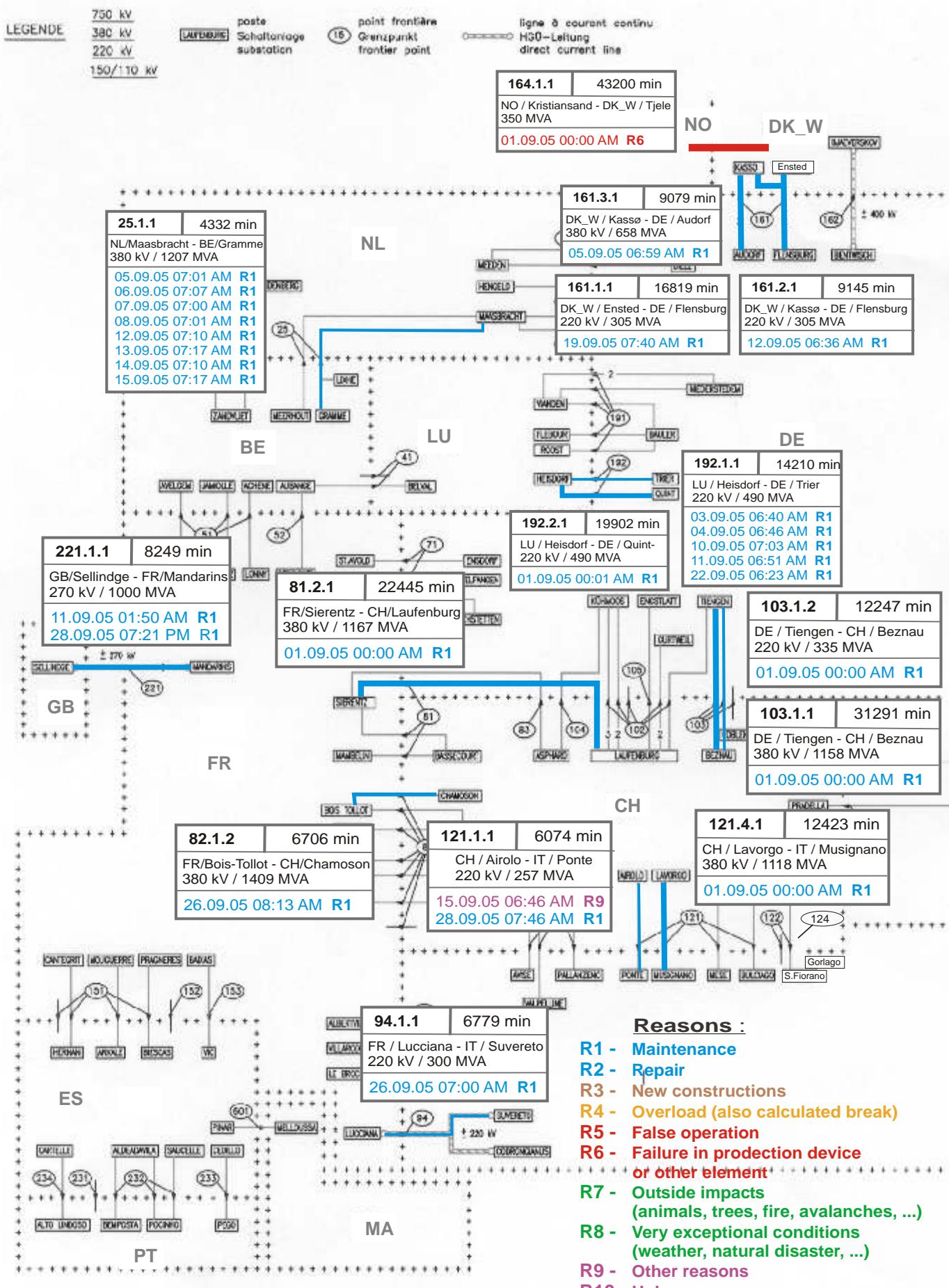
Total = 36471 MW

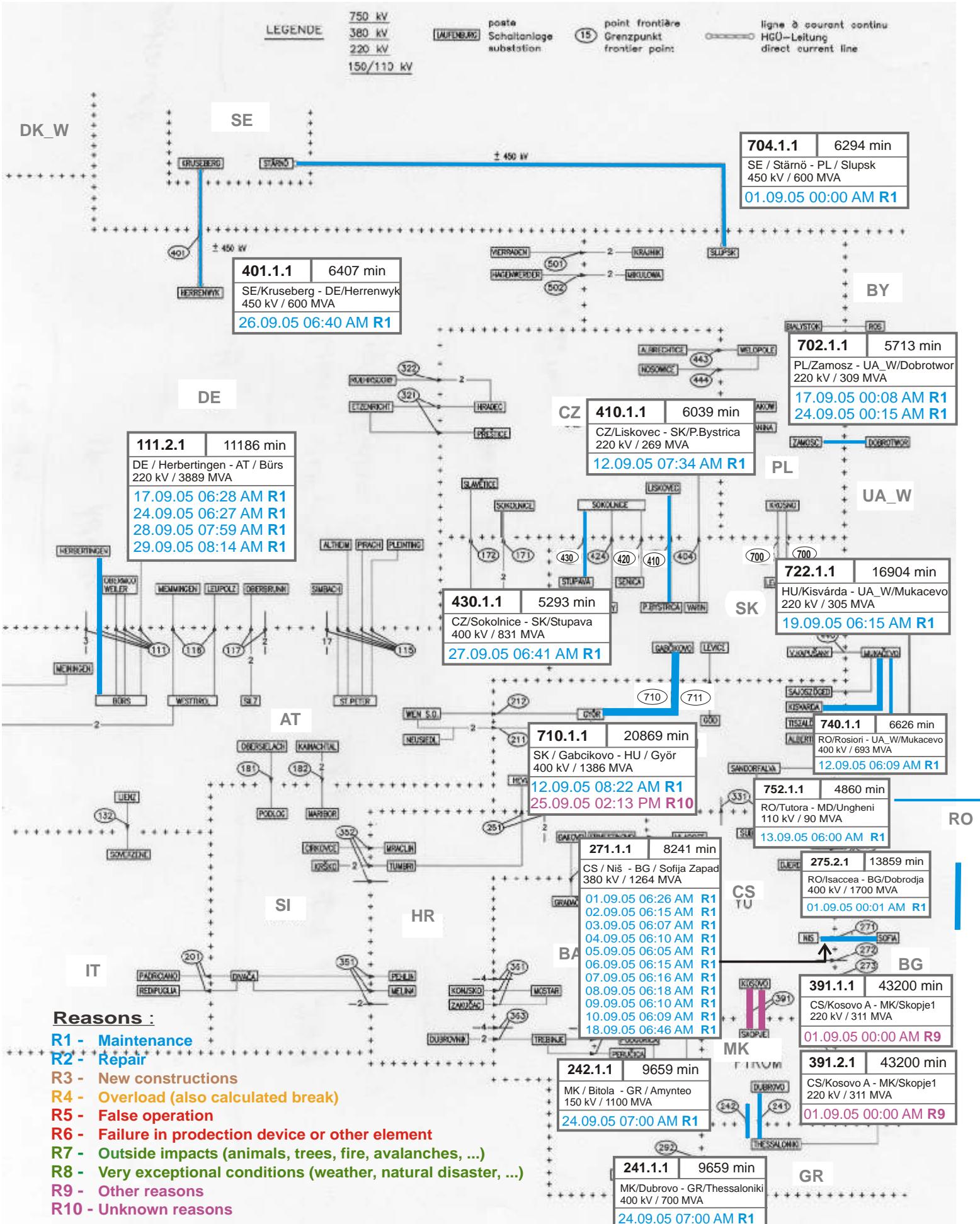
\* Central European Time ( CET )

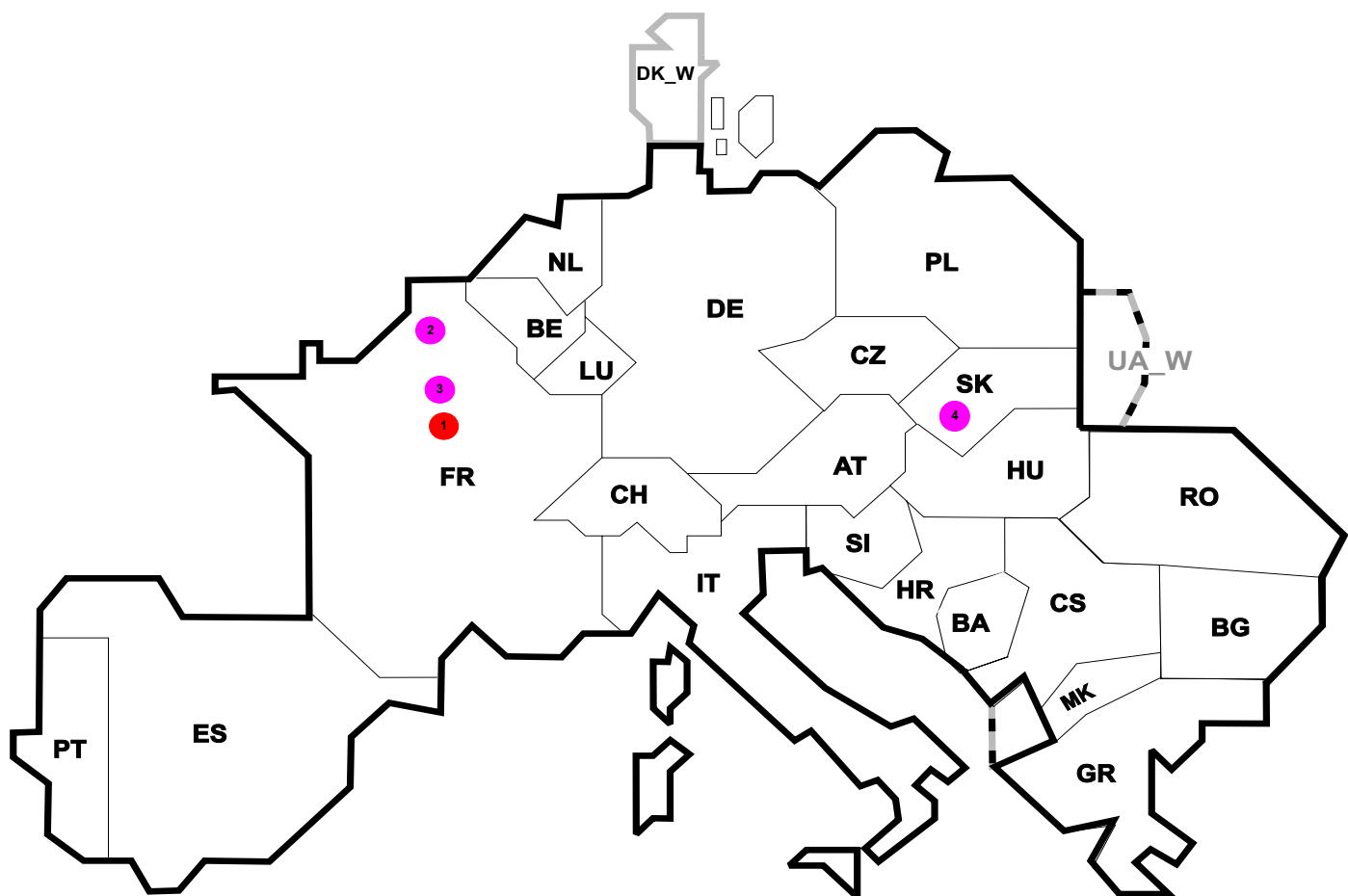
I = Import balance

E = Export balance

Synchronous operation with first region







## Reasons:

- R4 Overload (also calculated break)
- R5 False operation
- R6 Failure in protection device or other element
- R7 Outside impacts (animals, trees, fire, avalanches, ...)  
(animals, trees, fire, avalanches, ...)

- R8 Very exceptional conditions  
(weather, natural disaster, ...)
- R9 Other reasons
- R10 Unknown reasons

Nbr	Country	Substation	Reason	Energy not supplied [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	FR	Gien	R5	13	20	40	0,01
2	FR	Roubaix Nord	R9	11	72	18	0,01
3	FR	Cretaine	R9	10	45	13	0,01
4	SK	Medzibrod	R9	10	95	6	0,20

<sup>1</sup> ( year [in min] \* energy not supply ) / consumption last 12 months

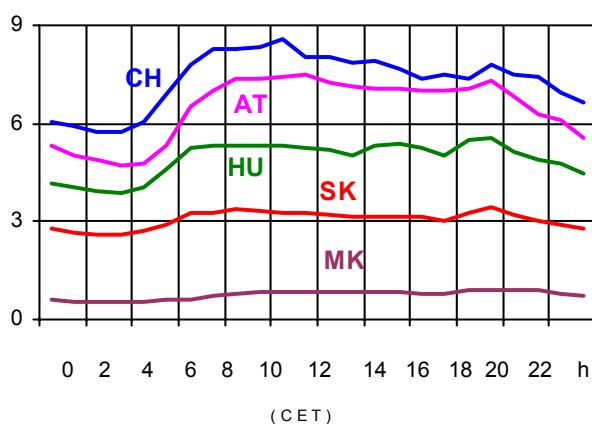
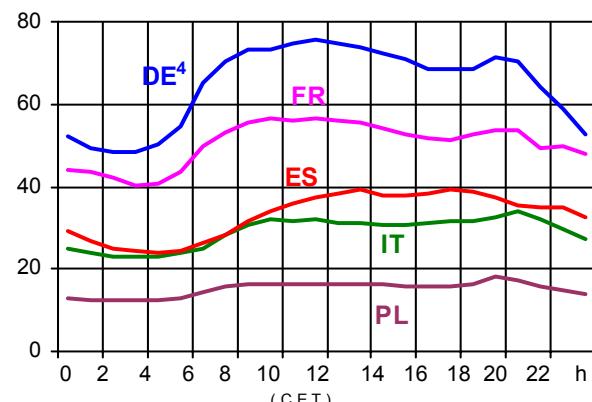
Control area	Export Programs	Import Programs	Export Programs at 03:00	Import Programs at 03:00	Export Programs at 11:00	Import Programs at 11:00
AT	896573	852149	640	1126	932	2908
BA	91889	23051	284	85	396	35
BE	320338	875565	861	1200	261	1200
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2258851	2297899	2755	4093	4321	3002
CS	396461	341099	625	386	802	658
CZ	1749961	724052	2158	907	2595	1410
DE	2370374	3108554	3314	2258	2240	6818
ES	911392	403347	1507	550	1107	522
FR	7105022	1533895	10503	2753	8997	981
GR	26935	421957	0	867	100	597
HR	148756	609145	250	809	246	760
HU	419051	959193	651	1103	492	1736
IT	82467	3884401	346	5526	50	6178
MK	9100	76100	127	162	63	166
NL	414024	1801469	368	2467	437	2682
PL	1042653	139186	1111	155	1700	215
PT	14007	738186	0	1398	0	999
RO	372249	188544	388	310	645	242
SI	579398	568623	843	682	851	736
SK	563515	361899	769	275	754	620
DK_W	499441	615058	397	960	995	960
UA_W <sup>1</sup>	353702	0	423	0	493	0

- Control areas can differ from national borders ( i.e. German block which includes parts of AT, LU and DK ).
- Values are calculated on an hourly base ( MWh ).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the actual date.
- Export Programs: Sum of all positive values of every hour of every border
- Import Programs: Sum of all negative values of every hour of every border
- Export Programs at 03:00: Sum of all positive values the third Wednesday from 02:00 to 03:00 a.m.
- Import Programs at 03:00: Sum of all negative values the third Wednesday from 02:00 to 03:00 a.m.
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.
- Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

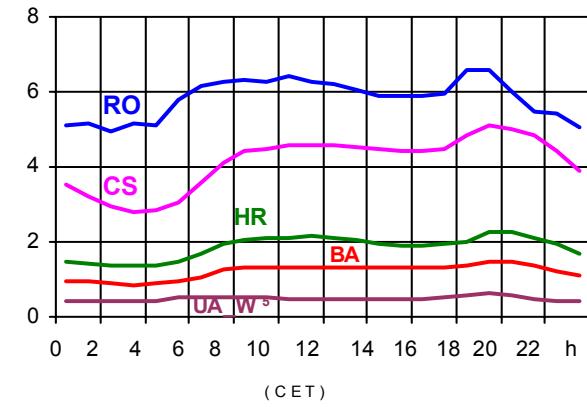
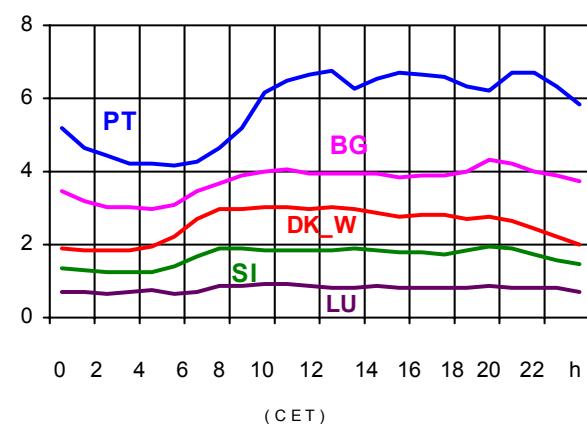
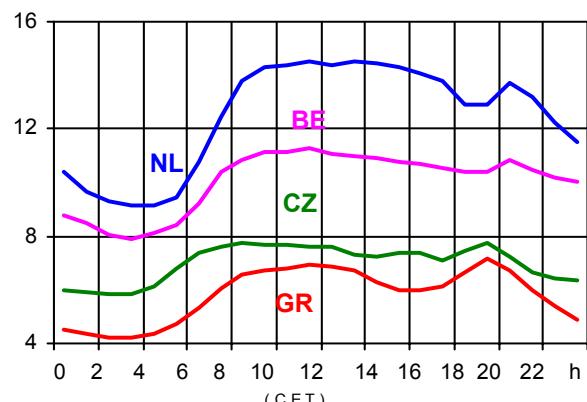
<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

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

Consumption hourly load curves<sup>1</sup> on 21.09.2005



Values in GW



	Peak load MW	var.% <sup>2</sup>	Load representativity <sup>1</sup> %	Parallel power <sup>3</sup> MW
AT	7506	-20,9	100	10002
BA	1487	4,6	100	1691
BE	11259	-0,4	100	10124
BG	4301	0,3	100	4859
CH	8605	1,3	100	10524
CS	5112	1,6	100	4692
CZ	7782	3,3	100	9103
DE <sup>4</sup>	75714	0,6	91	74500
ES	39126	12,9	98	35983
FR	56394	1,1	100	64459
GR	7193	-2,3	100	6311
HR	2279	6,1	100	1766
HU	5556	4,2	100	4045
IT	34004	-30,7	100	26972
LU	919	5,0	99	916
MK	930	5,6	100	716
NL	14543	1,8	100	12119
PL	18290	4,4	100	18253
PT	6745	4,1	97	5305
RO	6590	7,9	100	6431
SI	1958	9,3	95	1865
SK	3435	-1,3	100	3364
UCTE	<b>310923</b>	-3,5		<b>314000</b>
DK_W	3053	3,7	100	3191
UA_W <sup>5</sup>	619	-11,8	100	1033

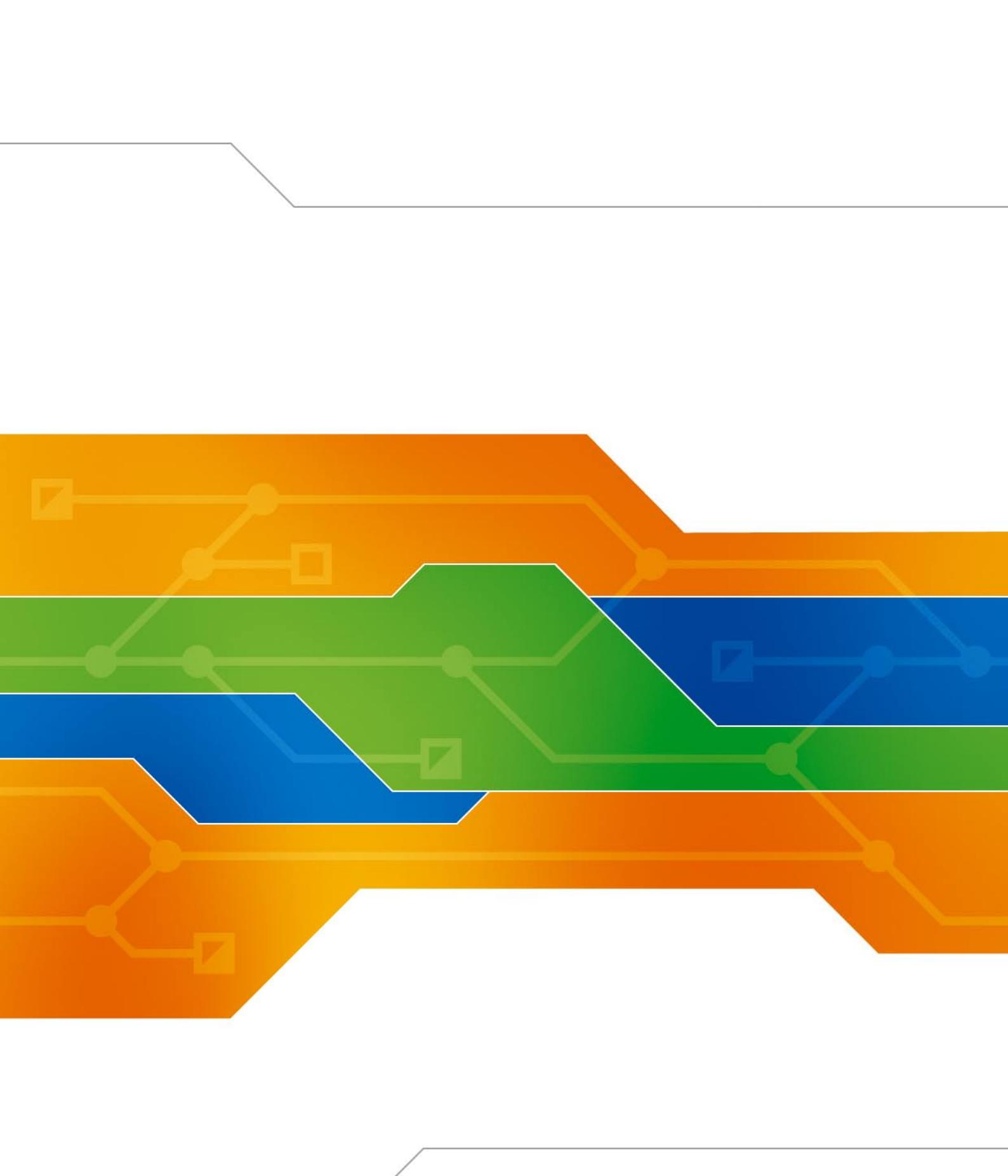
<sup>1</sup> Percentage as referred to total values in %

<sup>2</sup> Variation as compared to corresponding month of the previous year

<sup>3</sup> Power produced in parallel operation (including autoproduction)

<sup>4</sup> Values estimated on the basis of the vertical load. The vertical load is the total amount of the power flows out of the transmission network into distribution and large consumer networks.

<sup>5</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE



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