



# January 2009

Monthly provisional values

union for the co-ordination of transmission of electricity

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#### **General remarks and abbreviations used in the tables**

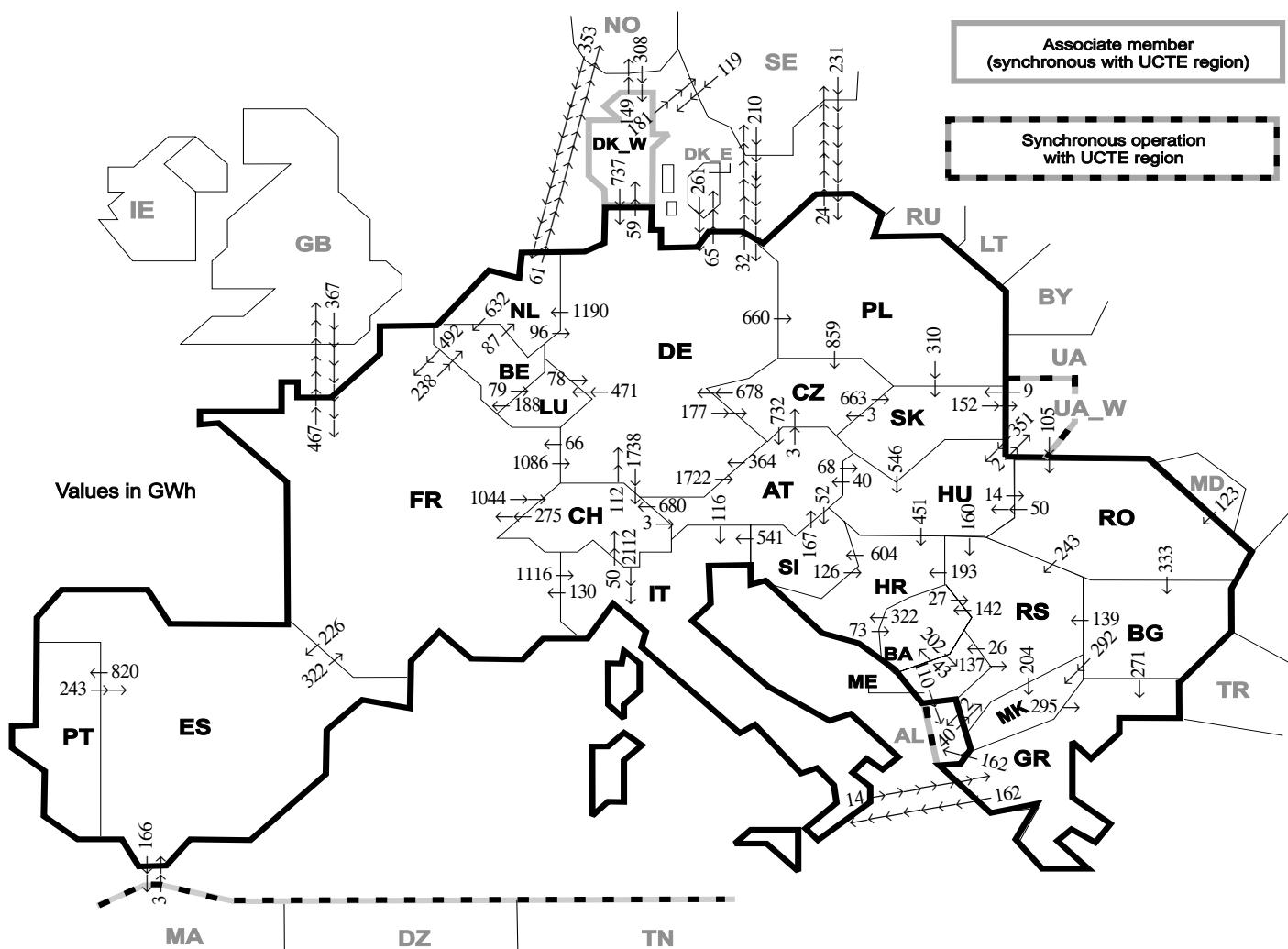
- All values of production and consumption in chapter 1, 3&4, 5&6 and 12 are calculated to represent 100% of the national values.
- DK\_W Denmark West represents the Western part of Denmark synchronously interconnected with UCTE (Jutland and Funen).
- UA\_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with UCTE.
- CET Central European Time
- The Bulgarian load values on the 3rd Wednesday are gross values

Coun- tries	Net production in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh			
	Therm. nuclear	Fossil fuels	Hydro prod	Other prod	Of which renew.	Non wind fiable	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	2581	2162	0	0	616	<b>5359</b>	1261	362	6258	-1,5	68280	1,1
BA	0	693	699	0	0	0	<b>1392</b>	-292	0	1100	0,6	11582	3,0
BE <sup>2</sup>	4366	3001	153	293	71	0	<b>7813</b> <sup>1</sup>	411	162	8062	-4,0	89126	-1,2
BG	1430	2421	227	0	0	0	<b>4078</b>	-375	94	3609	-7,9	34145	0,9
CH	2426	178	2675	106	2	0	<b>5385</b> <sup>1</sup>	1029	117	6297	n.a.	64670	n.a.
CZ	2469	4701	163	17	16	0	<b>7350</b> <sup>1</sup>	-999	63	6288	-1,0	65072	0,2
DE	12605	34472	1456	5510	3352	0	<b>54043</b> <sup>1</sup>	-2558	676	50809	-2,5	555875	0,1
DK_W	0	1923	2	647	483	0	<b>2572</b> <sup>1</sup>	-577	0	1995	-2,6	21659	-0,6
ES	5430	13705	2625	3794	3358	34	<b>25588</b>	-898	484	24206	-4,8	272826	1,6
FR	43090	7849	6097	1007	633	0	<b>58043</b> <sup>1</sup>	-2678	724	54641	9,6	499282	3,5
GR	0	3896	341	215	196	0	<b>4452</b> <sup>1</sup>	284	83	4653	-5,3	56047	0,1
HR	0	488	807	5	4	0	<b>1300</b> <sup>1</sup>	414	90	1624	-3,4	17804	1,7
HU	1498	1980	0	0	0	0	<b>3478</b> <sup>1</sup>	347	0	3825	7,2	39192	-4,9
IT	0	19032	3869	1051	640	0	<b>23952</b>	3853	541	27264	-8,1	335185	-1,5
LU	0	286	89	13	5	0	<b>388</b>	284	107	565	-9,2	6617	-2,5
ME	0	138	320	0	0	0	<b>458</b>	-68	0	390	-15,6	4511	-3,7
MK	0	560	101	0	0	0	<b>661</b>	201	0	862	-8,5	8563	-1,3
NL	365	9051	0	762	450	0	<b>10178</b> <sup>1</sup>	840	0	11018	-1,0	120094	2,3
PL <sup>3</sup>	0	13082	188	100	88	0	<b>13370</b> <sup>1</sup>	-304	57	13009	-3,3	142409	-0,2
PT	0	2656	1008	832	687	0	<b>4496</b> <sup>1</sup>	592	61	5027	3,2	52347	1,6
RO	973	2973	1186	0	n.a.	0	<b>5132</b> <sup>1</sup>	-383	12	4737	-8,4	54774	0,4
RS	0	3180	1017	0	0	0	<b>4197</b>	84	59	4222	10,6	39387	2,8
SI	518	463	259	0	0	0	<b>1240</b> <sup>1</sup>	-182	0	1058	-7,8	12597	-6,1
SK	1251	655	280	27	0	0	<b>2213</b> <sup>1</sup>	282	27	2468	-6,4	27466	-0,7
UCTE	<b>76421</b>	<b>129964</b>	<b>25724</b>	<b>14379</b>	<b>9985</b>	<b>650</b>	<b>247138</b> <sup>1</sup>	<b>568</b>	<b>3719</b>	<b>243987</b>	<b>-0,7</b>	<b>2599510</b>	<b>0,8</b>
UA_W	0	741	11	0	0	0	752	-311	0	441	-3,3	4140	-3,9

<sup>1</sup> Including deliveries from industry<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations<sup>3</sup> Operational data

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	CZ	DE	DK_W	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	UA_W
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	100	
Fossil fuels	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	100	94	100	100	100	100	
Hydro prod	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Other renew.	100	100	100	100	100	100	100	100	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Non identifiable	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Consumption	100	100	100	100	100	100	100	100	98	100	100	100	100	100	100	100	100	100	100	97	100	100	100	100	

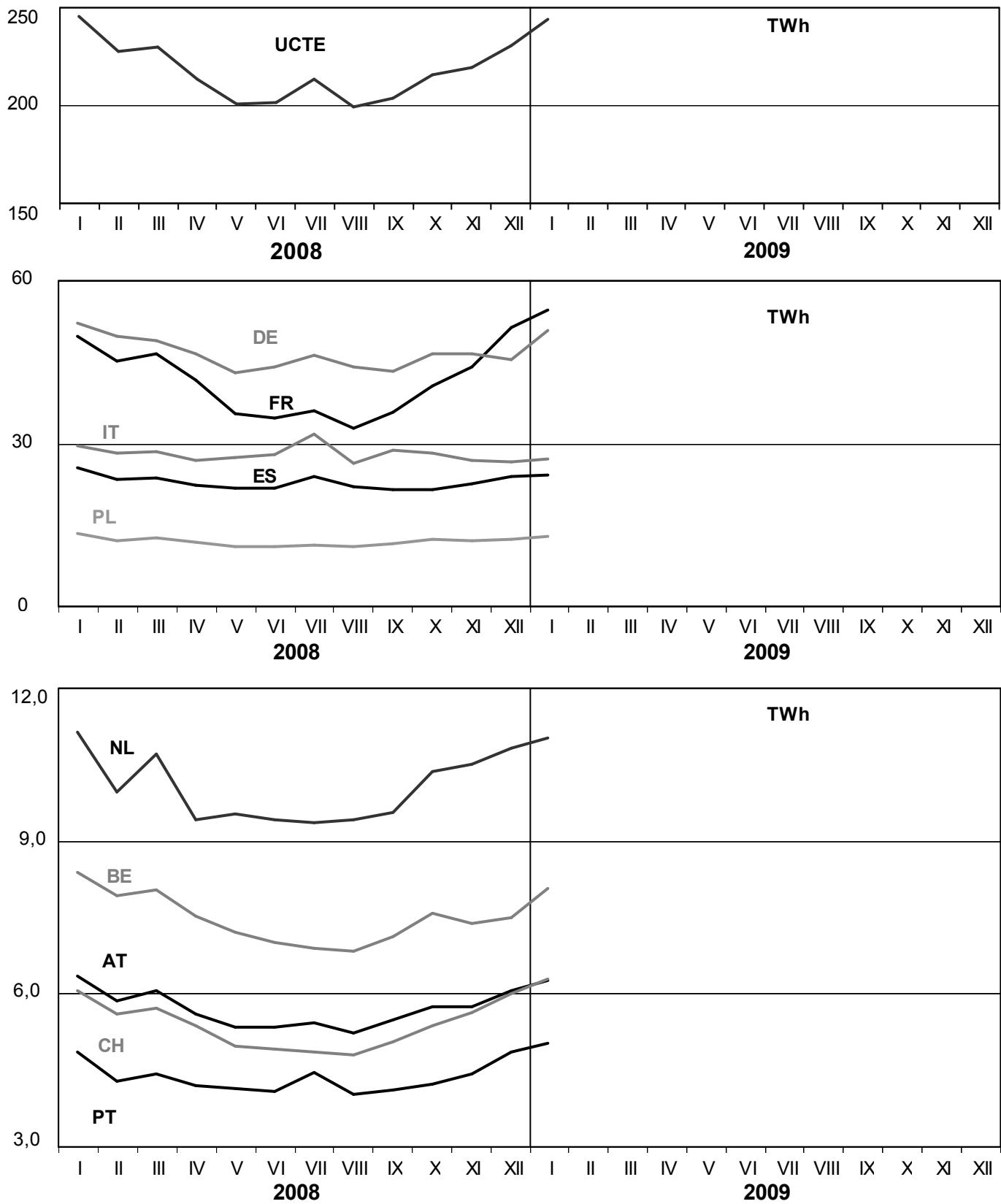


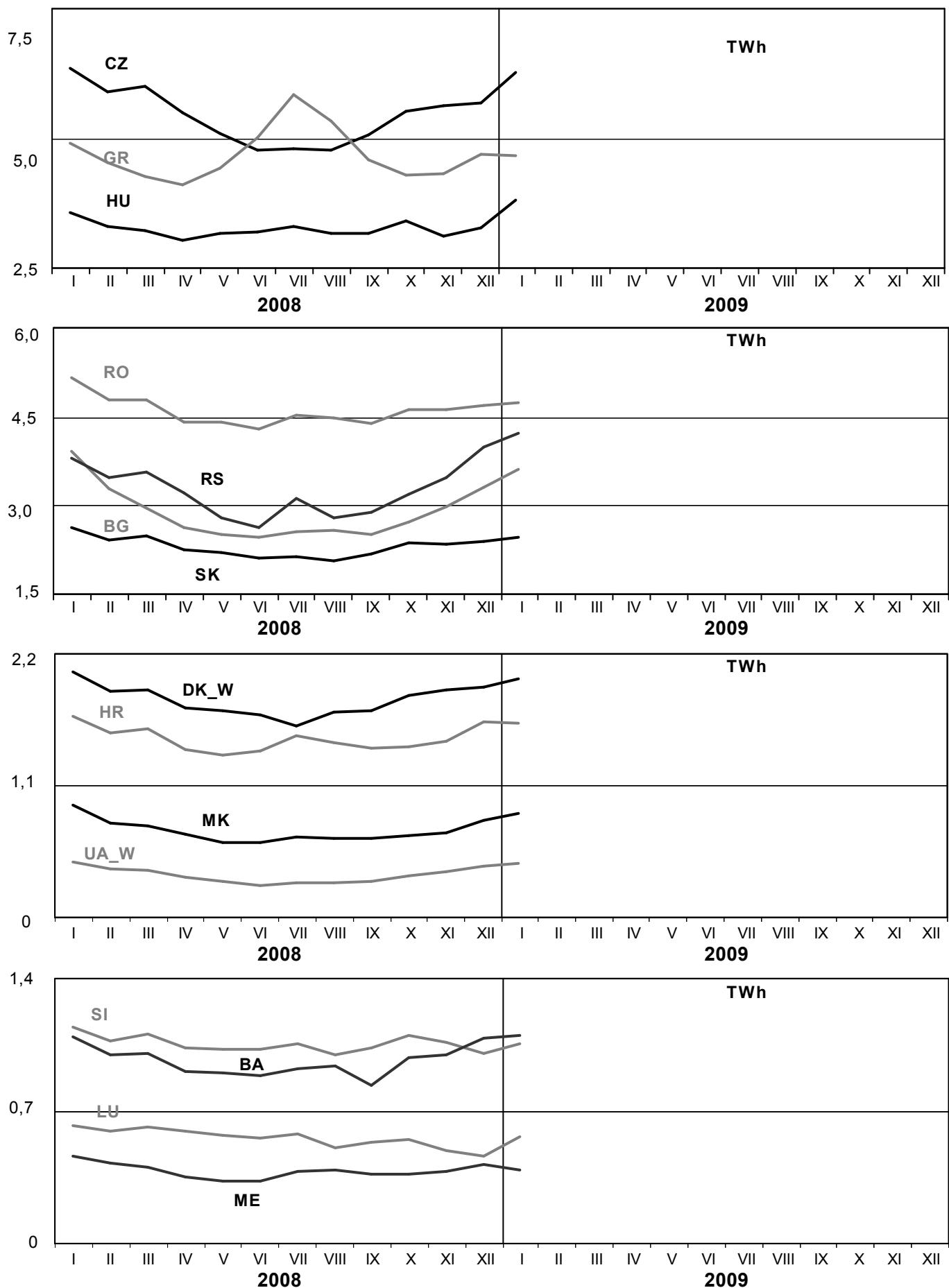
Exporting countries	AT	BA	BE	BG	CH	CZ	DE	DK_W	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	UA_W	Other III'	Sum export
AT	-	-	-	-	680	3	364	-	-	-	-	68	116	-	-	-	-	-	-	-	-	52	-	-	-	1283	
BA	-	-	-	-	-	-	-	-	-	-	-	322	-	-	-	-	-	-	-	-	-	27	-	-	-	551	
BE	-	-	-	-	-	-	-	-	-	492	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	658	
BG	-	-	-	-	-	-	-	-	-	-	271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	702	
CH	3	-	-	-	-	112	-	-	275	-	-	-	2112	-	-	-	-	-	-	-	-	-	-	-	-	2502	
CZ	732	-	-	-	-	678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	663	-	-	-	2073	
DE	1722	-	-	-	1738	177	-	59	-	66	-	-	-	471	-	-	-	1190	660	-	-	-	-	-	-	6180	
DK_W	-	-	-	-	-	-	737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1067	
ES	-	-	-	-	-	-	-	-	322	-	-	-	-	-	-	-	-	-	-	820	-	-	-	-	166	1308	
FR	-	238	-	1044	-	1086	-	226	-	-	-	-	1116	-	-	-	-	-	-	-	-	-	-	-	467	4177	
GR	-	-	-	0	-	-	-	-	-	-	-	162	-	-	0	-	-	-	-	-	-	-	-	-	162	324	
HR	-	73	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	604	-	-	677		
HU	40	-	-	-	-	-	-	-	-	-	451	-	-	-	-	-	-	-	-	14	160	-	0	2	-	667	
IT	0	-	-	50	-	-	-	-	130	14	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	194	
LU	-	-	188	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	
ME	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	-	-	-	110	290	
MK	-	-	0	-	-	-	-	-	295	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	295	
NL	-	-	632	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	789	
PL	-	-	-	-	859	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310	-	24	-	1193		
PT	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	
RO	-	-	-	333	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	243	-	0	0	-	626		
RS	-	142	-	0	-	-	-	-	-	-	193	0	-	26	204	-	-	-	0	-	-	-	-	2	-	567	
SI	167	-	-	-	-	-	-	-	-	126	-	541	-	-	-	-	-	-	-	-	-	-	-	-	-	834	
SK	-	-	-	-	3	-	-	-	-	-	546	-	-	-	-	0	-	-	-	-	-	-	152	-	701		
UA_W	-	-	-	-	-	-	-	-	-	-	351	-	-	-	-	-	-	-	105	-	9	-	-	465			
Other III'	-	-	-	0	-	471	427	3	367	0	-	-	-	0	-	353	231	-	123	40	-	-	-	-	2015		
<b>Sum imp</b>	2664	258	1058	333	3512	1042	3622	486	472	1652	580	1092	1015	4047	550	228	496	1630	891	820	242	746	656	982	154	1419	30647

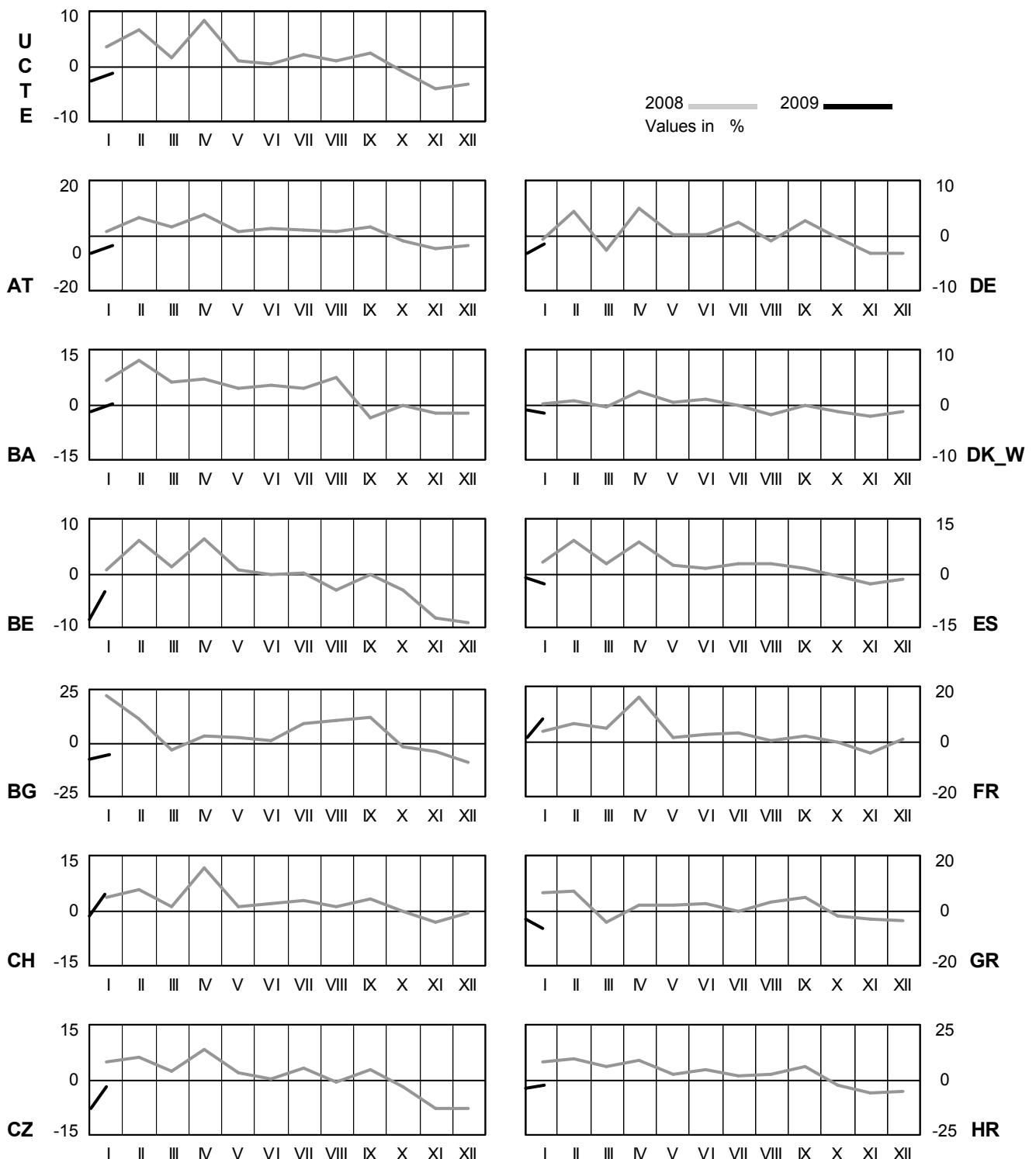
Sum of physical energy flows between UCTE countries = 26594GWh

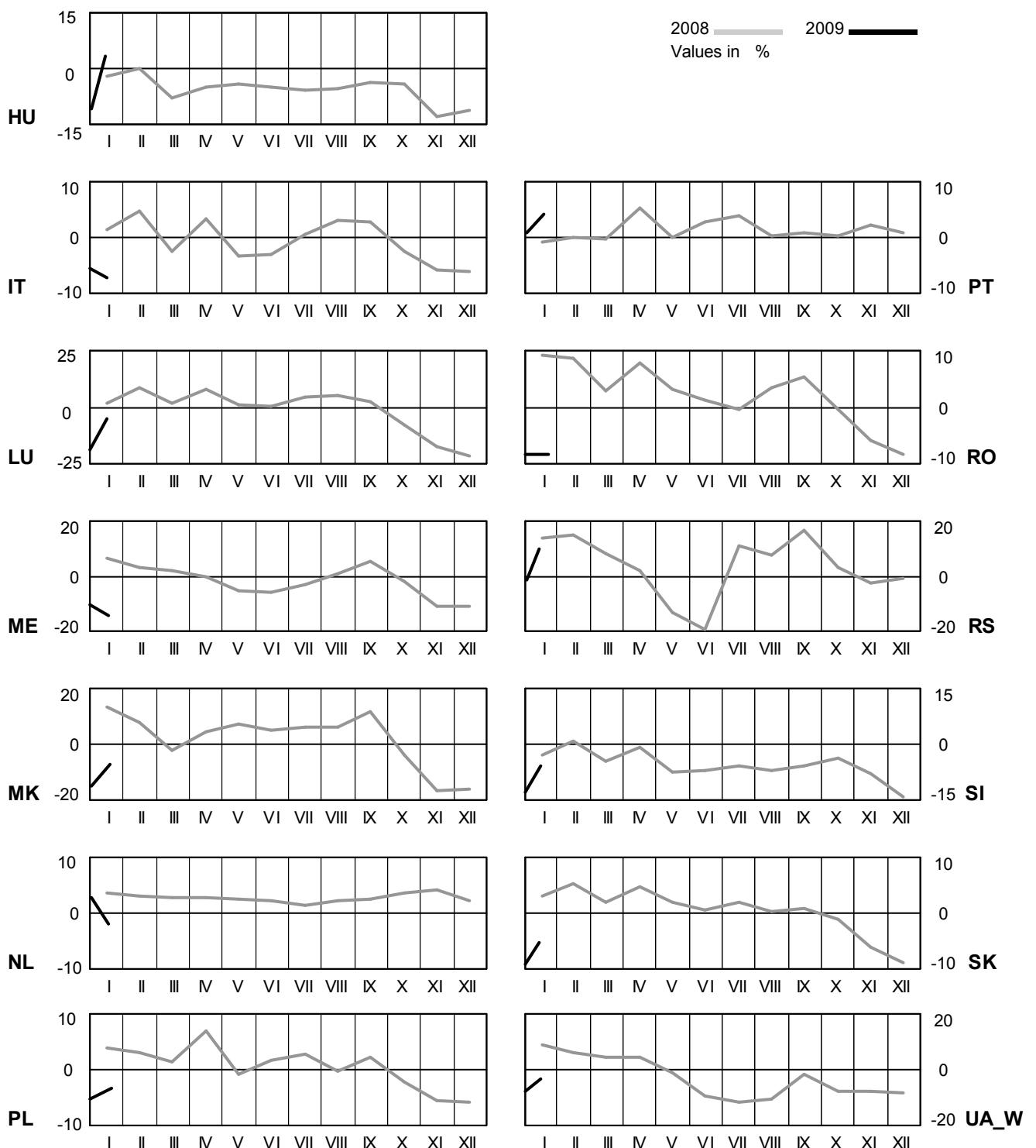
Total physical energy flows = 30647GWh

<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and UkrainaThese 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.

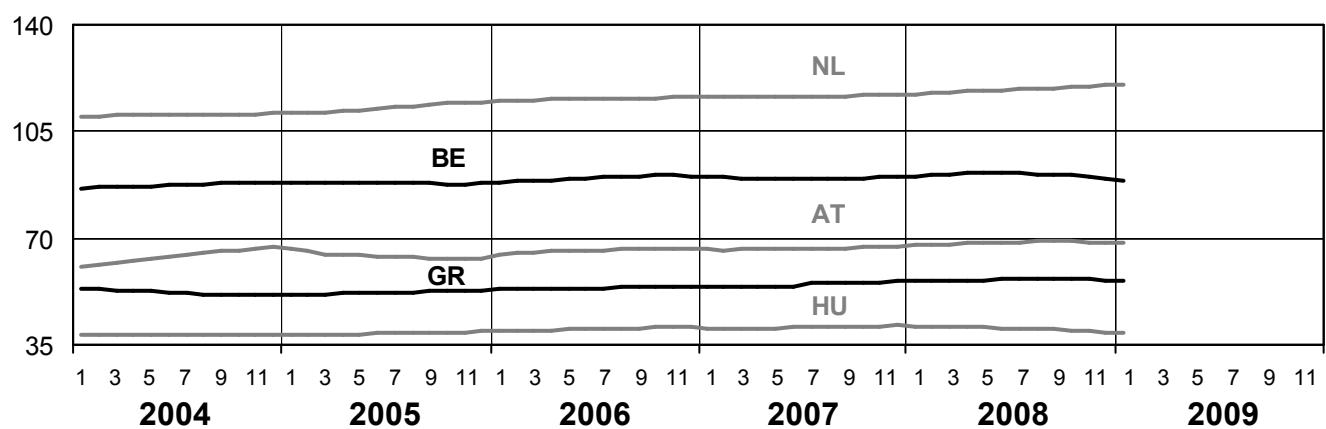
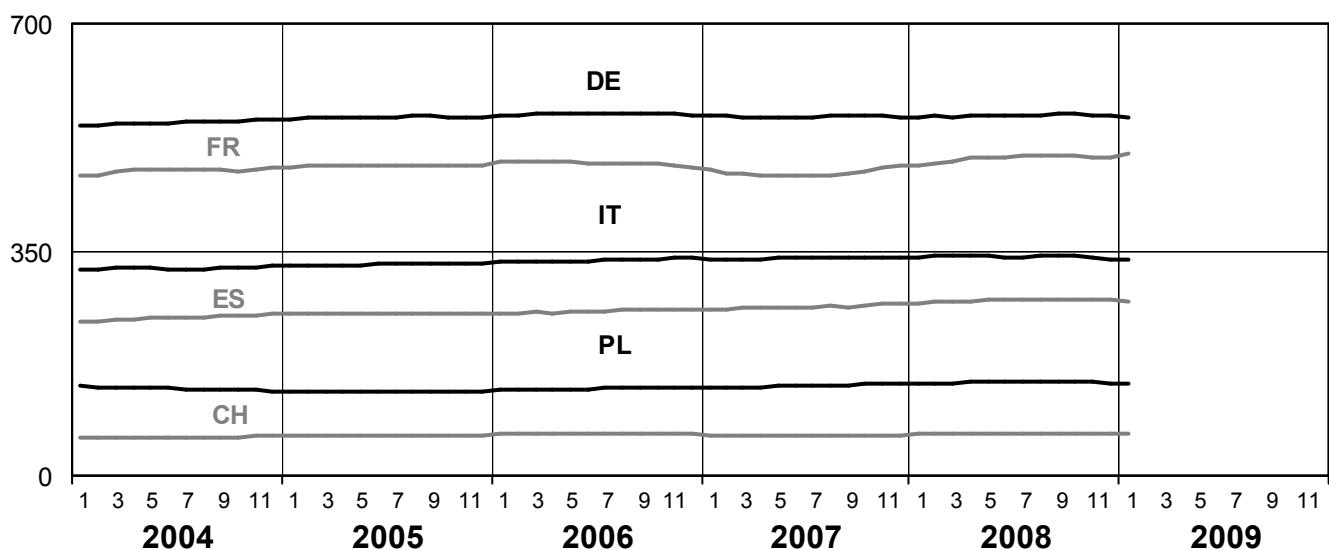
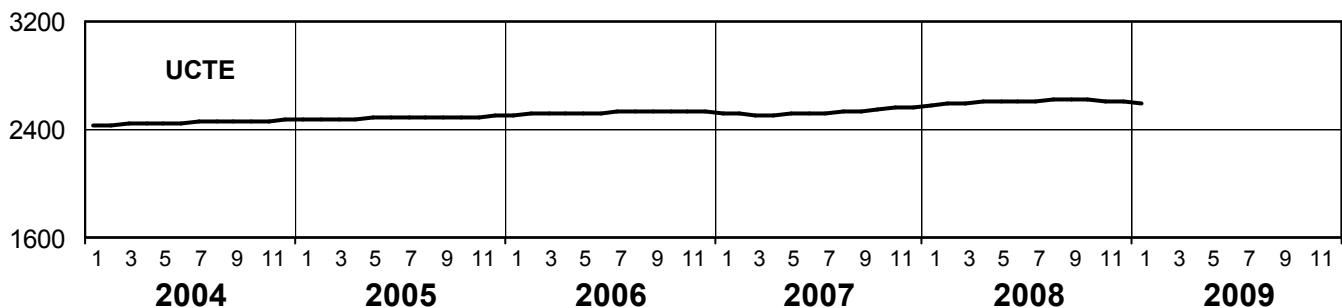




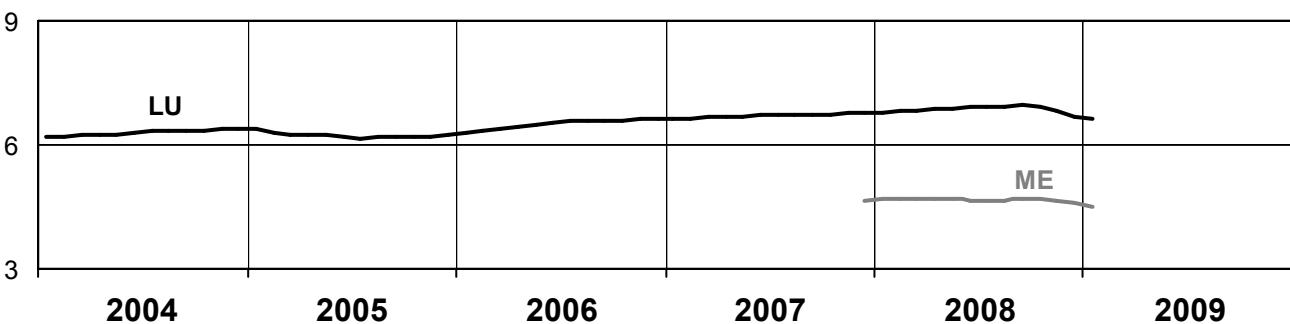
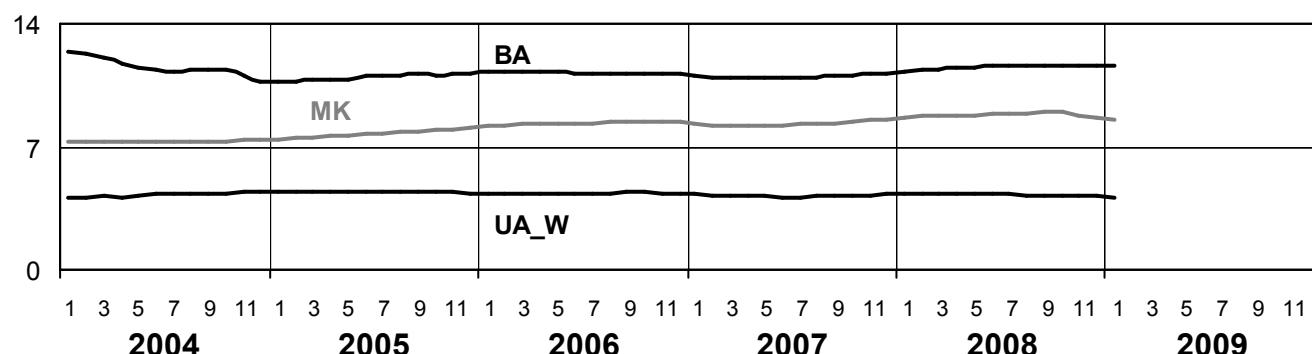
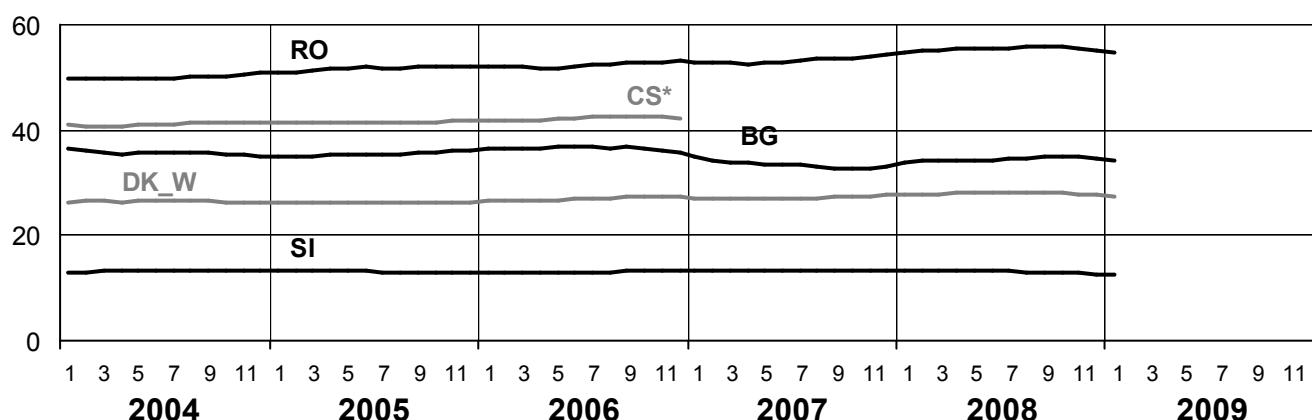
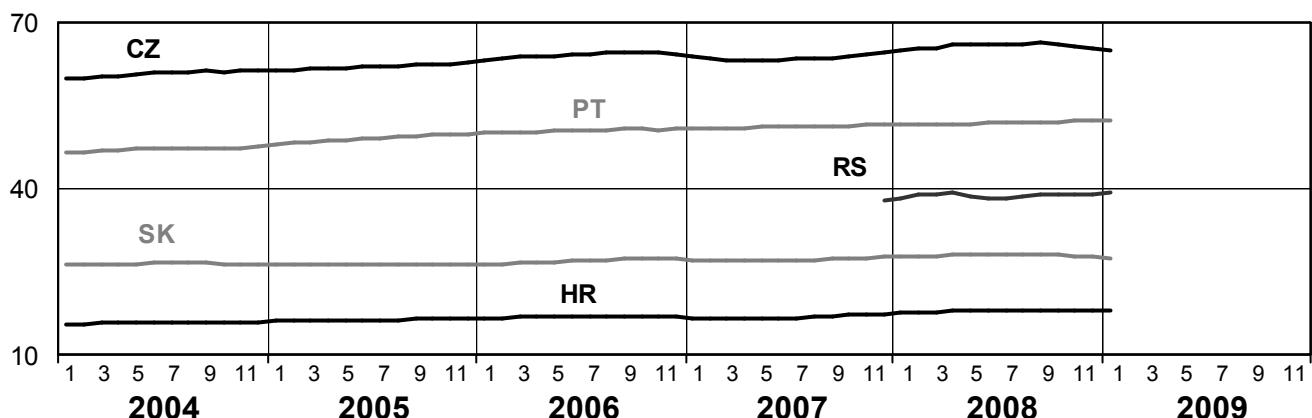




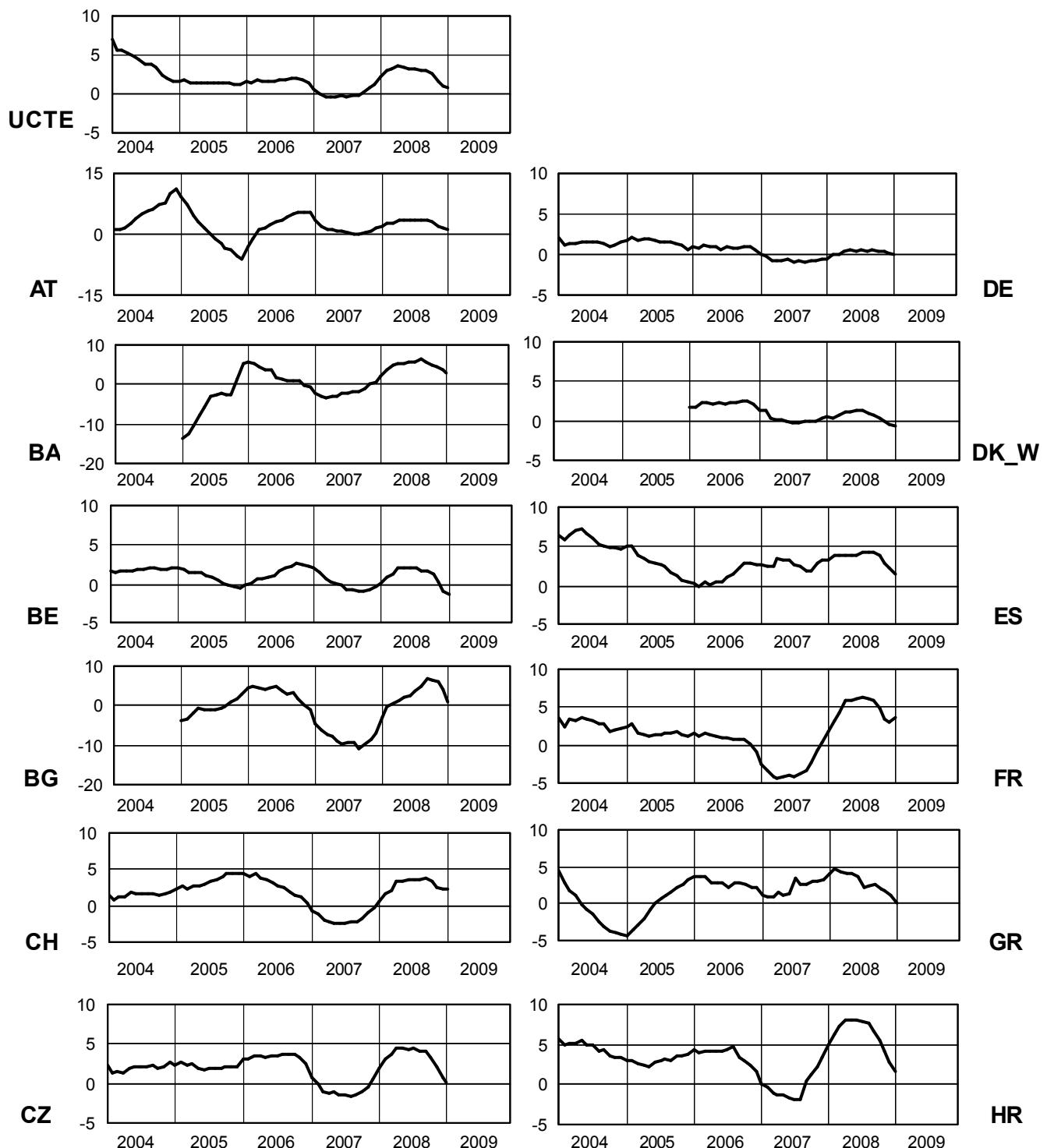
TWh



TWh



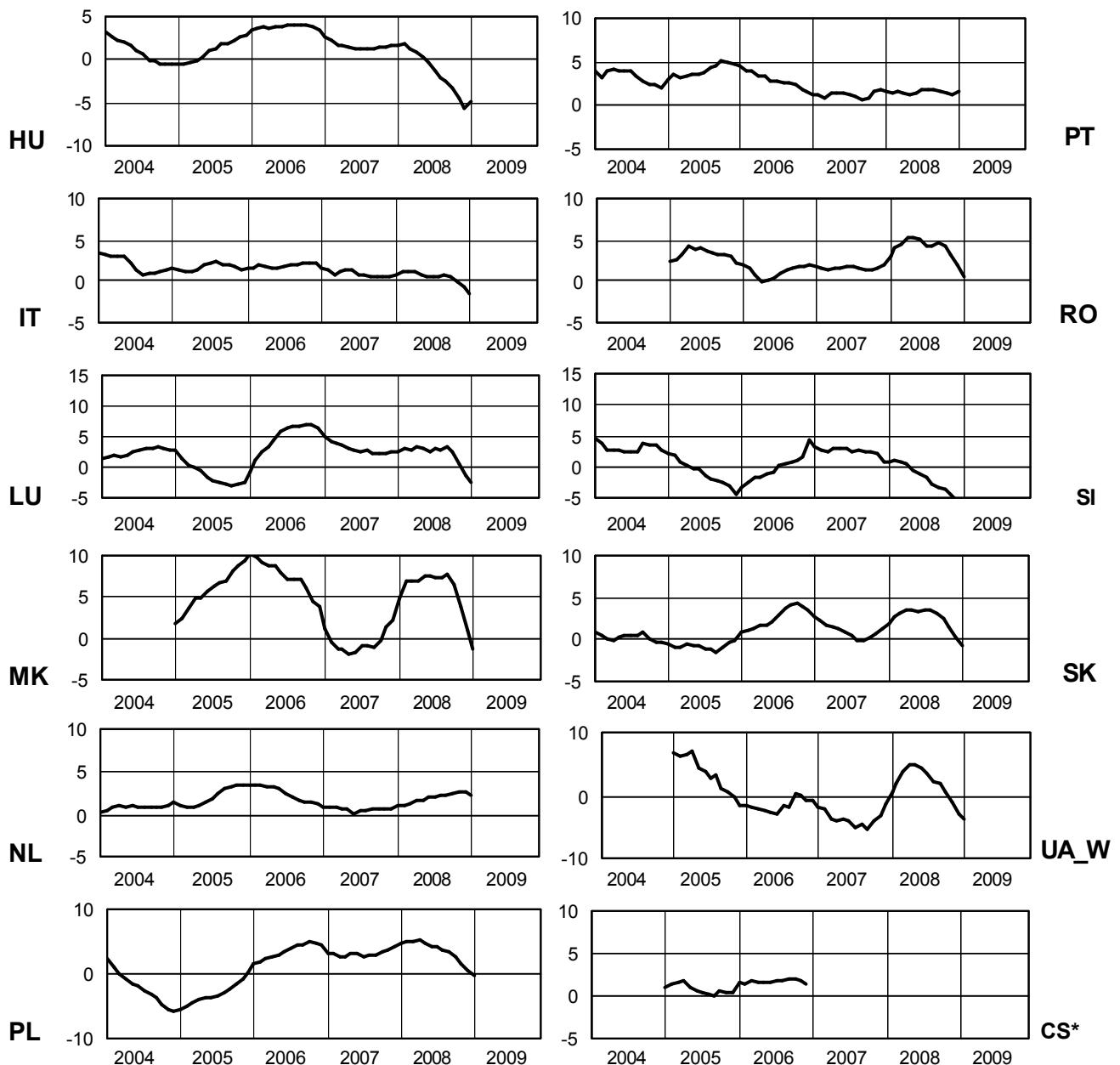
\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries



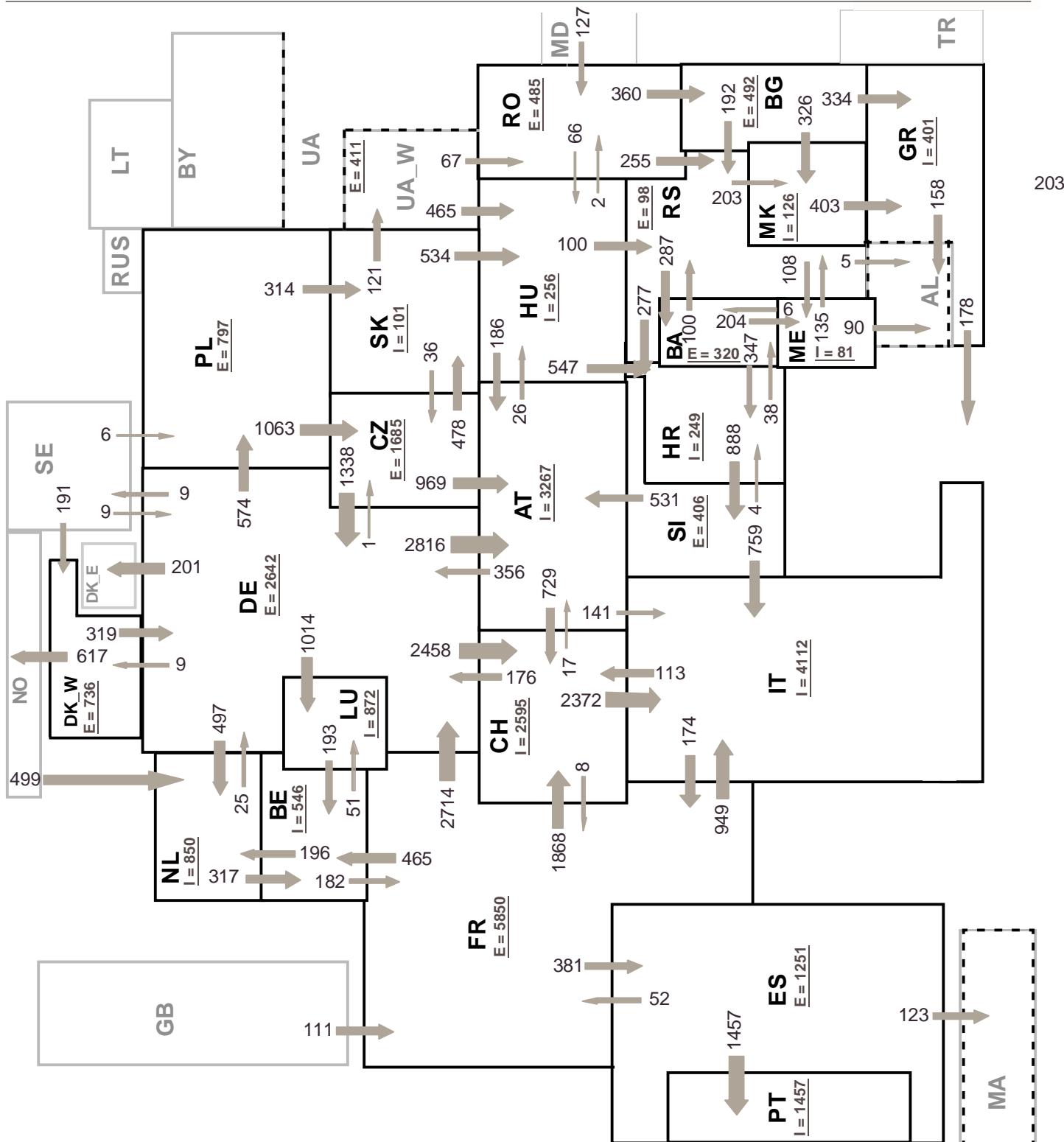
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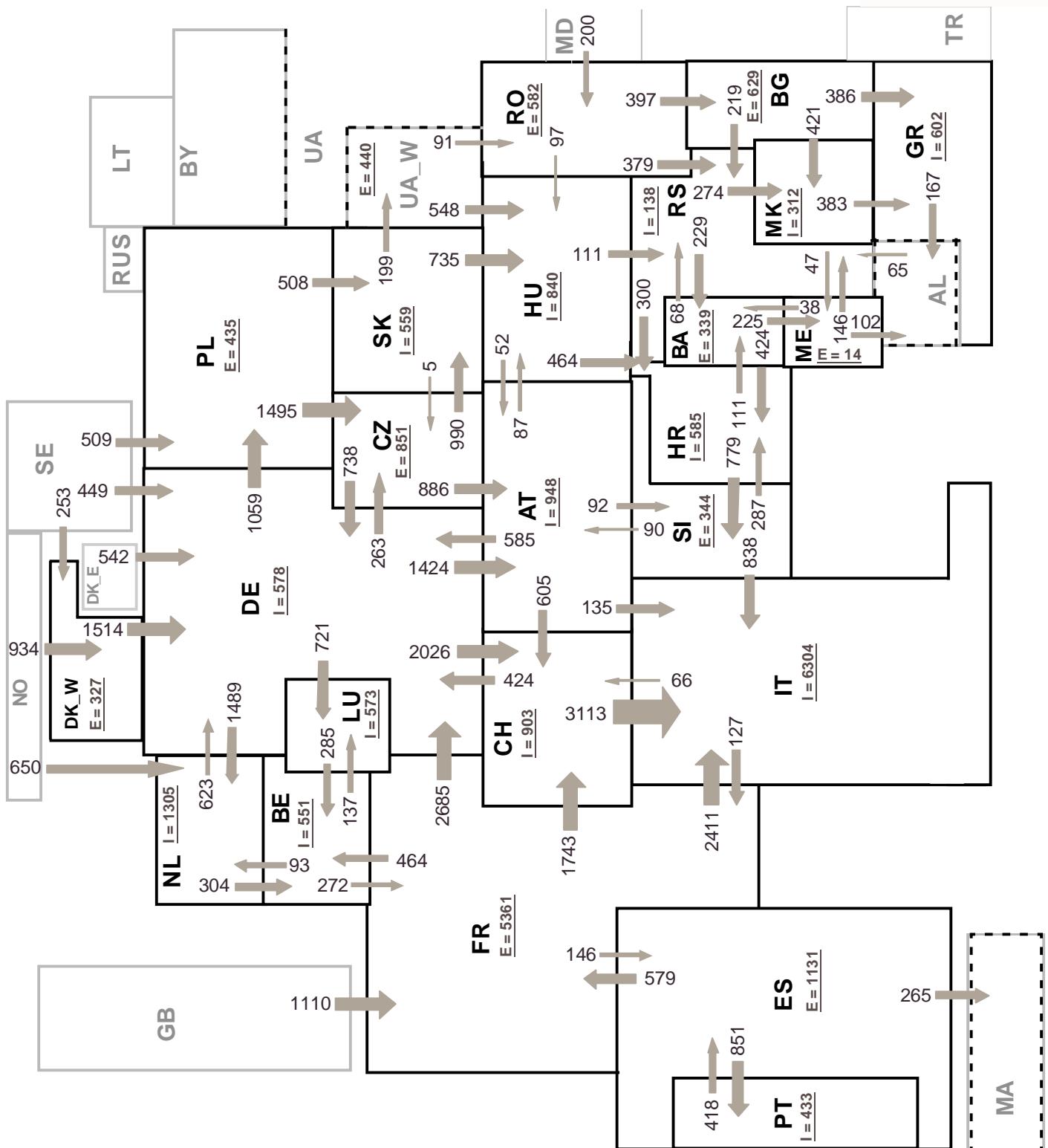
## Variation of the last 12 months' consumption in %

January 2009



\* CS consumption values of the last 12 months until December 2006; variation ME and RS will be published from the second quarter 2009 on





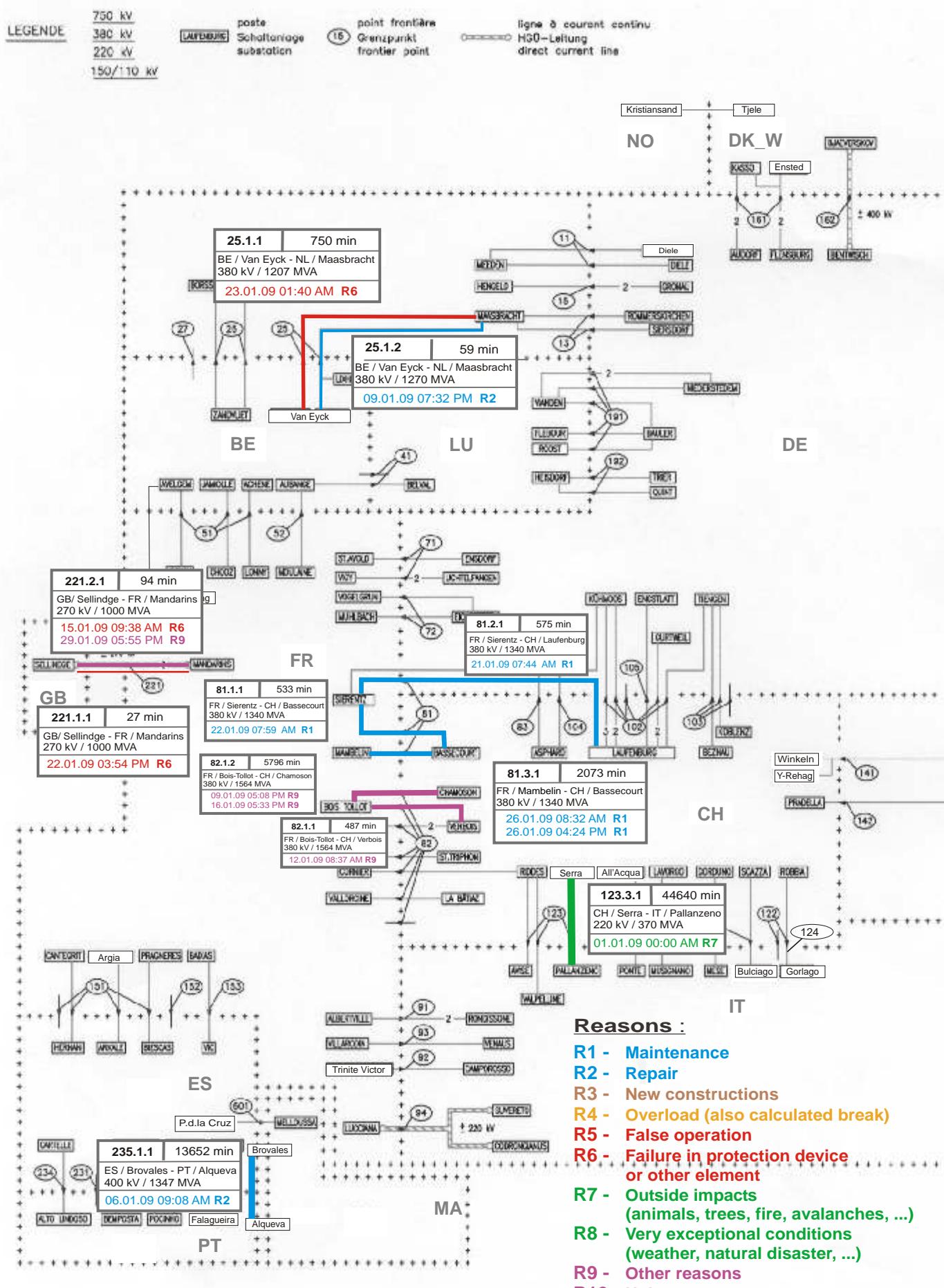
Sum of load flows in MW

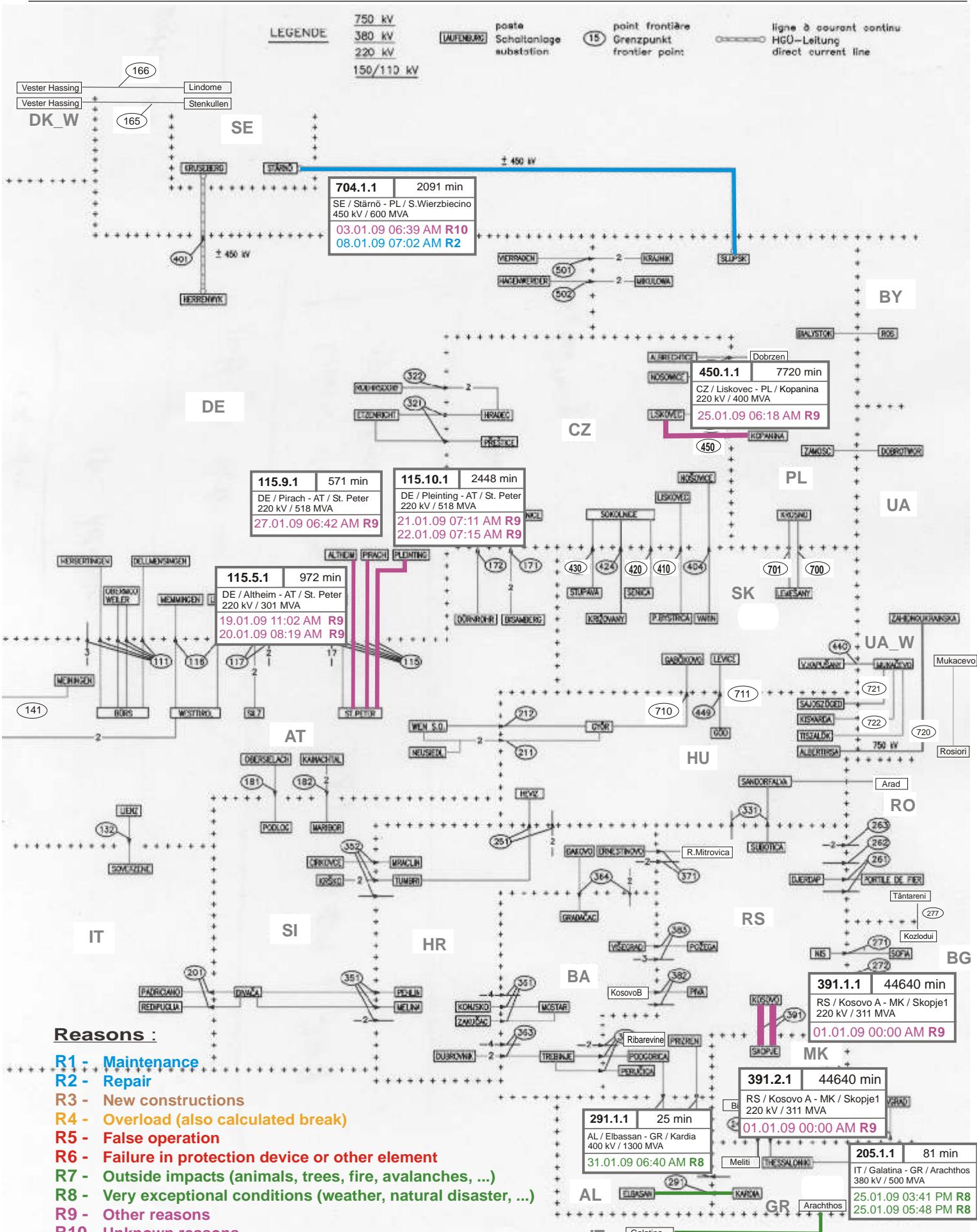
UCTE = 36863 MW

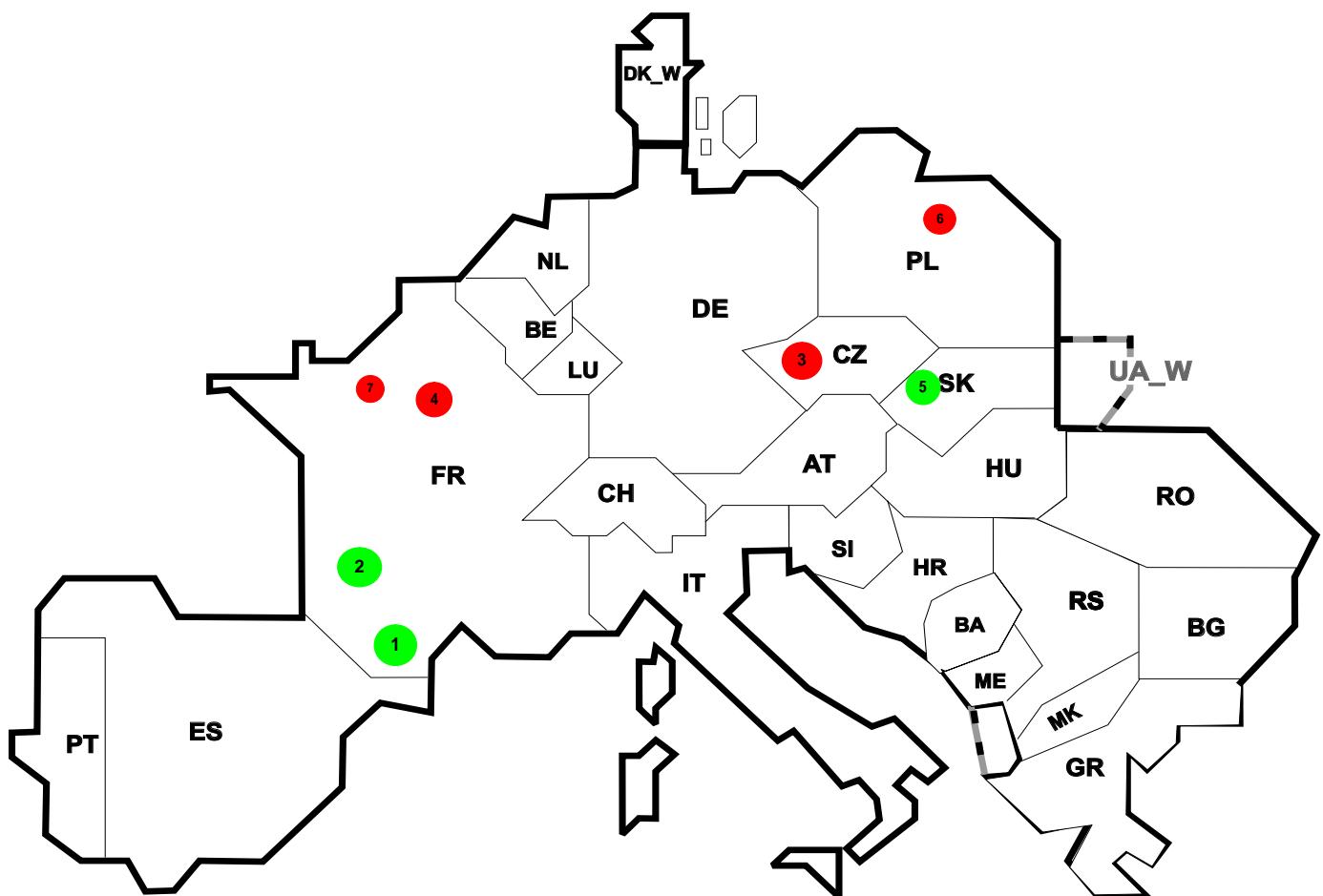
Total = 42947 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance







## Reasons:

R4 Overload (also calculated break)

R5 False operation

R6 Failure in protection device or other element

R7 Outside impacts (animals, trees, fire, avalanches, ...)

R8 Very exceptional conditions (weather, natural disaster, ...)

R9 Other reasons

R10 Unknown reasons

No	Country	Substation	Reason	Energy not supplied <sup>2</sup> [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	FR	Vich	R8	497	254	117	0,523
2	FR	Colayrac	R8	381	64	354	0,401
3	CZ	Prestice	R5	11	130	5	0,089
4	FR	Charenton	R6	64	72	53	0,067
5	SK	Sučany	R8	3	15	3	0,057
6	PL	Klikowa	R6	8	9	54	0,030
7	FR	Flers	R7	2	8	18	0,002

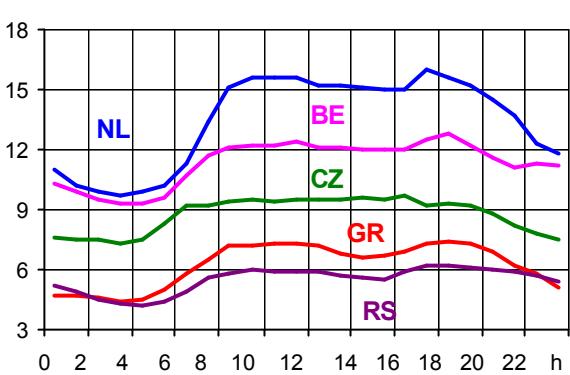
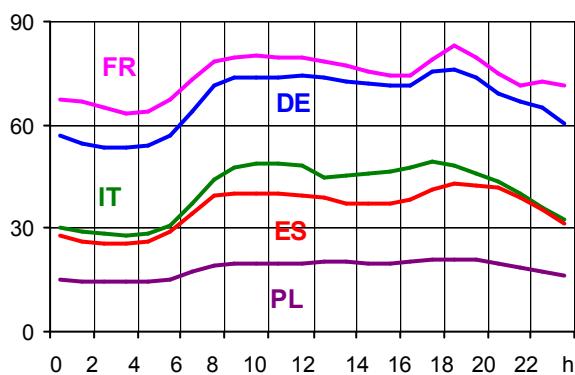
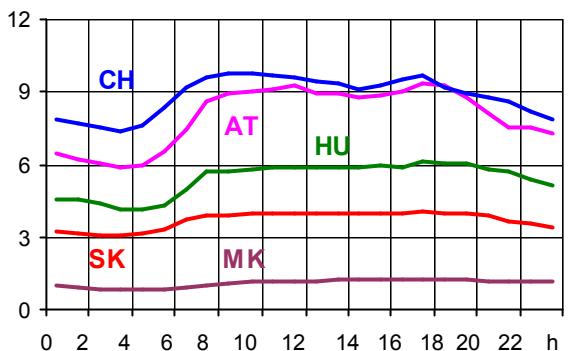
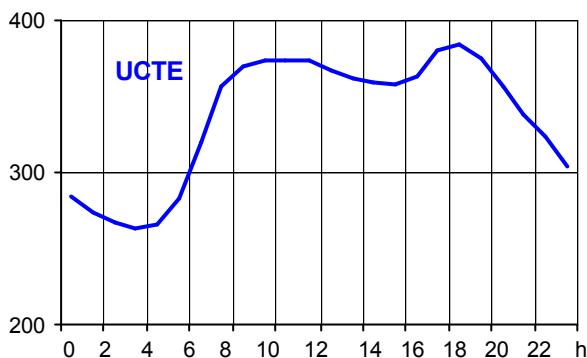
<sup>1</sup> ( year [in min] \* energy not supplied ) / consumption last 12 months

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	576928	932829	1550	418	424	845
BA	454548	163962	157	100	181	100
BE	477300	777236	0	458	747	1198
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	1626620	2651021	1206	3781	3116	4026
CZ	1867513	775585	2774	983	2272	1378
DE	3794248	1241761	2592	2473	2158	1446
DK_W	384492	257767	430	0	325	397
ES	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FR	6048506	3453145	8927	3125	9294	3896
GR	183598	461695	305	725	0	590
HR	58526	473302	313	580	0	602
HU	807679	1152882	1111	1345	1211	2048
IT	194464	4046566	287	4399	193	6517
ME	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MK	0	209900	140	268	140	450
NL	1001568	1850211	1293	2144	1637	2950
PL	436487	260370	682	20	800	509
PT	40635	637186	0	1453	0	761
RO	530944	150383	616	142	839	252
RS	393925	440677	430	315	547	590
SI	787505	605674	1449	1013	1239	903
SK	491793	695526	466	491	603	1054
UA_W	303407	0	409	0	440	0

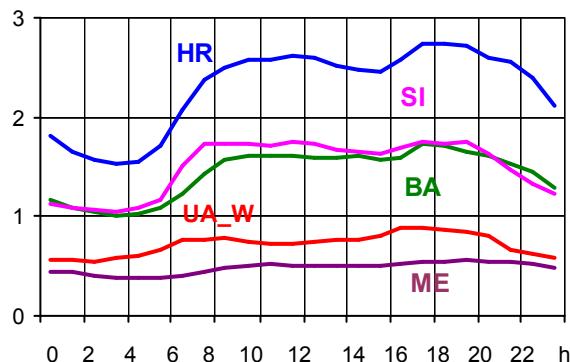
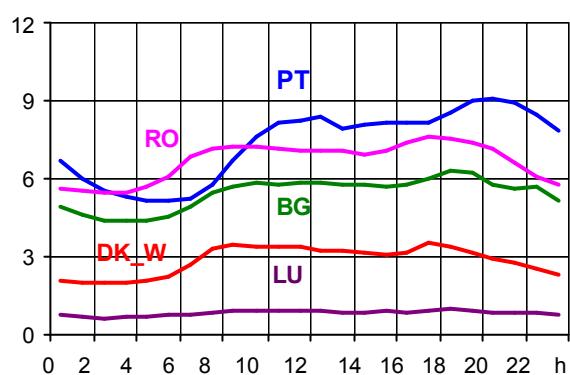
- Control areas can differ from national borders ( i.e. German block which includes parts of AT, LU and DK ).
- Values are calculated on an hourly base ( MWh ).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the 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.

Consumption hourly load curves on 21.01.2009 CET

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %
AT	9325	4,1	100
BA	1726	-3,7	100
BE <sup>2</sup>	12789	-3,8	100
BG	6303	-6,9	99
CH	9752	1,5	100
CZ	9666	-1,4	100
DE	75875	-6,3	91
DK_W	3537	-3,5	100
ES	42865	1,8	98
FR	82807	6,3	100
GR	7365	-8,1	100
HR	2746	0,2	100
HU	6156	-2,1	100
IT	49307	-6,3	100
LU	972	-6,6	100
ME	557	-16,9	100
MK	1264	-11,7	100
NL	15960	-7,8	100
PL <sup>3</sup>	20946	-4,4	100
PT	9112	8,7	97
RO	7652	-9,3	100
RS	6194	-5,0	100
SI	1744	-6,5	100
SK	4053	-5,2	100
UCTE	384830	-1,9	100
UA_W	894	-5,3	100



<sup>1</sup> Variation as compared to corresponding month of the previous year

<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.

<sup>3</sup> Operational data

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