



# September 2008

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

Countries	Net production in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh			
	Therm. nuclear	Fossil fuels	Hydro prod	Other renew.	Of which wind	Non identifiable	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	1907	2828	0	0	631	5366	397	279	5484	2,9	69001	3,6
BA	0	737	222	0	0	0	959	-124	0	835	-3,5	11627	5,7
BE <sup>2</sup>	3227	2819	116	252	0	0	6414 <sup>1</sup>	812	140	7086	-0,5	90917	1,8
BG	677	2136	195	0	0	0	3008	-454	55	2499	11,9	34948	7,0
CH	2256	168	4288	92	2	0	6804 <sup>1</sup>	-1529	205	5070	3,1	64638	3,9
CZ	1936	3578	109	14	13	0	5637 <sup>1</sup>	-544	20	5073	2,8	66222	4,0
DE	11432	27544	1635	4341	2131	0	44952 <sup>1</sup>	-981	624	43347	2,6	560362	0,6
DK_W	0	1157	2	396	275	0	1555 <sup>1</sup>	172	0	1727	-0,1	21843	0,8
ES	4468	14205	1502	2505	0	0	22680	-936	221	21523	1,4	272686	3,4
FR	31238	3079	4822	721	433	0	39860 <sup>1</sup>	-3666	497	35697	2,0	496138	5,9
GR	0	3919	230	123	0	0	4272 <sup>1</sup>	424	98	4598	4,6	56726	2,6
HR	0	596	267	4	4	0	867 <sup>1</sup>	552	10	1409	6,3	18083	6,6
HU	1000	1913	0	0	0	0	2913 <sup>1</sup>	379	0	3292	0,1	41617	1,5
IT	0	21851	3831	864	462	0	26546	2746	626	28666	2,5	340900	0,6
LU	0	261	66	13	5	0	340	281	88	533	2,1	6954	3,4
ME	0	132	131	0	0	0	263	102	0	365	5,8	4681	n.a.
MK	0	349	77	0	0	0	426	235	0	661	11,5	8967	7,8
NL	345	7212	0	543	274	0	8100 <sup>1</sup>	1292	0	9392	0,7	117246	0,5
PL <sup>3</sup>	0	11373	175	48	0	0	11596 <sup>1</sup>	40	90	11546	2,3	144590	3,5
PT	0	2645	461	408	282	0	3514 <sup>1</sup>	641	26	4129	0,8	52422	2,6
RO	926	2755	923	0	0	0	4604 <sup>1</sup>	-212	4	4388	5,4	55934	4,7
RS	0	2265	697	0	0	0	2962	-25	29	2908	16,8	38985	n.a.
SI	493	402	217	0	0	0	1112 <sup>1</sup>	-75	0	1037	-5,6	12990	-3,2
SK	1135	546	267	23	0	0	1971 <sup>1</sup>	241	21	2191	0,7	28048	3,1
UCTE	59133	113549	23061	10347	0	631	206721 <sup>1</sup>	-232	3033	203456	2,4	2616525	3,2
UA_W	0	638	7	0	0	0	645	-350	0	295	-1,7	4255	2,0

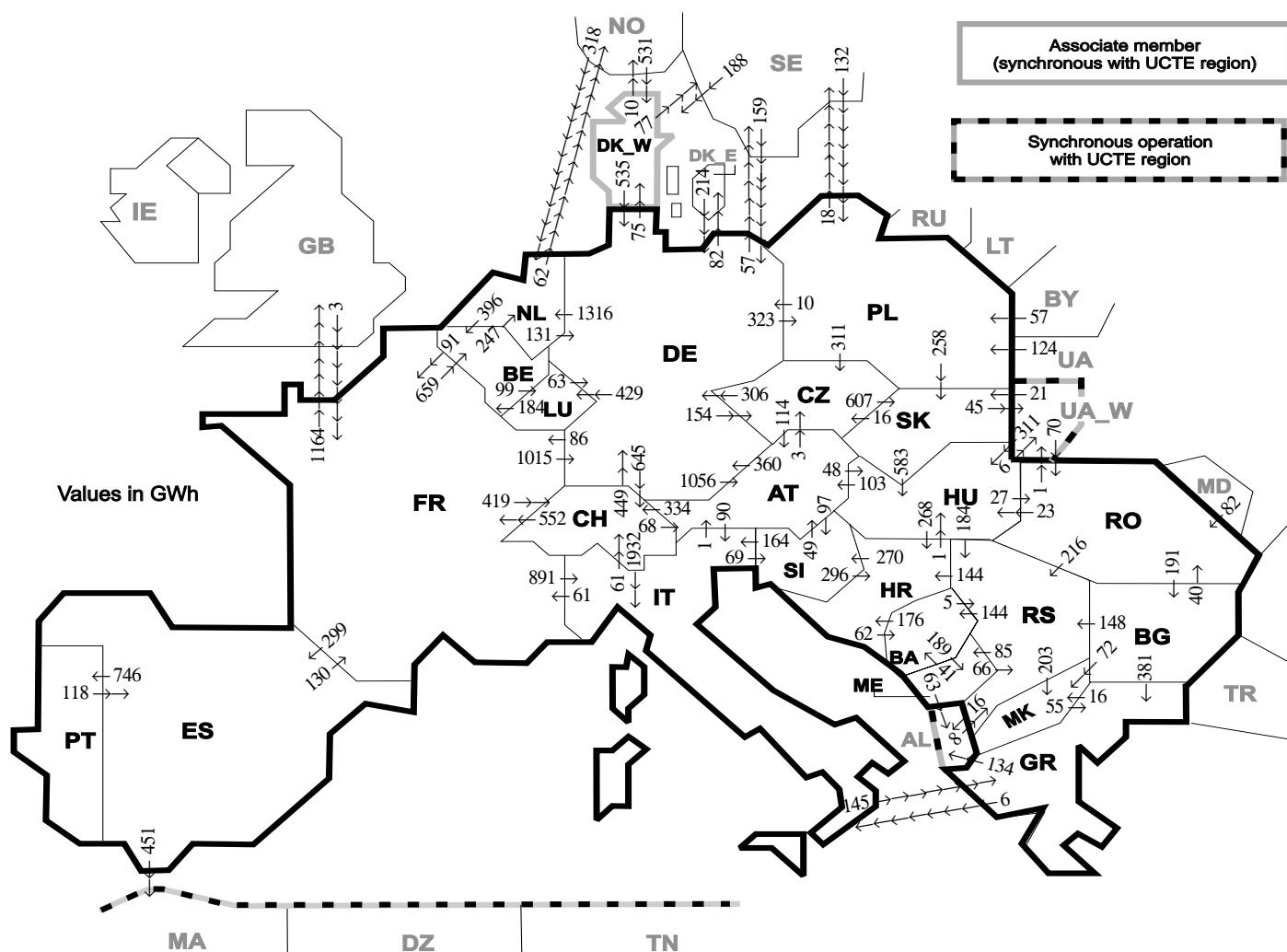
<sup>1</sup> Including deliveries from industry

<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	100
Fossil fuels	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	100	95	100	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	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	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	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	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 <sup>1</sup>	Sum export
AT	-	-	-	-	334	3	360	-	-	-	-	-	48	90	-	-	-	-	-	-	-	-	97	-	-	932	
BA	-	-	-	-	-	-	-	-	-	-	-	176	-	-	-	189	-	-	-	-	-	5	-	-	-	370	
BE	-	-	-	-	-	-	-	-	-	91	-	-	-	-	99	-	-	247	-	-	-	-	-	-	-	437	
BG	-	-	-	-	-	-	-	-	-	-	381	-	-	-	-	-	72	-	-	-	40	148	-	-	0	641	
CH	68	-	-	-	-	-	449	-	-	552	-	-	-	1932	-	-	-	-	-	-	-	148	-	-	-	3001	
CZ	114	-	-	-	-	-	306	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	607	-	-	1027	
DE	1056	-	-	-	645	154	-	75	-	86	-	-	-	429	-	-	-	1316	323	-	-	-	-	-	-	4223	
DK_W	-	-	-	-	-	-	-	535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	622	
ES	-	-	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-	-	-	746	-	-	-	-	-	1327	
FR	-	-	659	-	419	-	1015	-	299	-	-	-	-	891	-	-	-	-	-	-	-	-	-	-	-	4447	
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	6	-	16	-	-	-	-	-	-	-	-	-	156	
HR	-	62	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	270	-	0	6	333	
HU	103	-	-	-	-	-	-	-	-	-	-	268	-	-	-	-	-	-	-	-	27	184	0	6	-	588	
IT	1	-	-	-	61	-	-	-	-	61	145	-	-	-	-	-	-	-	-	-	-	-	69	-	-	337	
LU	-	-	184	-	-	-	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247	
ME	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	-	-	63	170	
MK	-	-	-	0	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	0	-	-	-	55	
NL	-	-	396	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	589	
PL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	258	18	597	
PT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	
RO	-	-	-	191	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	1	0	431
RS	-	144	-	0	-	-	-	-	-	-	-	144	0	-	85	203	-	-	-	-	0	-	-	-	-	16	592
SI	49	-	-	-	-	-	-	-	-	-	-	296	164	-	-	-	-	-	-	-	-	-	-	-	-	509	
SK	-	-	-	-	-	16	-	-	-	-	-	-	583	-	-	-	-	-	-	-	-	-	-	45	-	644	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	311	-	-	-	-	-	-	-	70	-	21	-	-	402	
Other III <sup>1</sup>	-	-	-	0	-	-	373	719	0	3	0	-	-	-	0	-	318	313	-	82	8	-	-	-	-	1816	
<b>Sum imp</b>	<b>1391</b>	<b>247</b>	<b>1239</b>	<b>191</b>	<b>1459</b>	<b>484</b>	<b>3242</b>	<b>794</b>	<b>417</b>	<b>923</b>	<b>581</b>	<b>884</b>	<b>966</b>	<b>3083</b>	<b>528</b>	<b>274</b>	<b>291</b>	<b>1881</b>	<b>636</b>	<b>746</b>	<b>219</b>	<b>627</b>	<b>436</b>	<b>886</b>	<b>52</b>	<b>2134</b>	<b>24611</b>

Sum of physical energy flows between UCTE countries = 20207GWh Total physical energy flows = 24611GWh

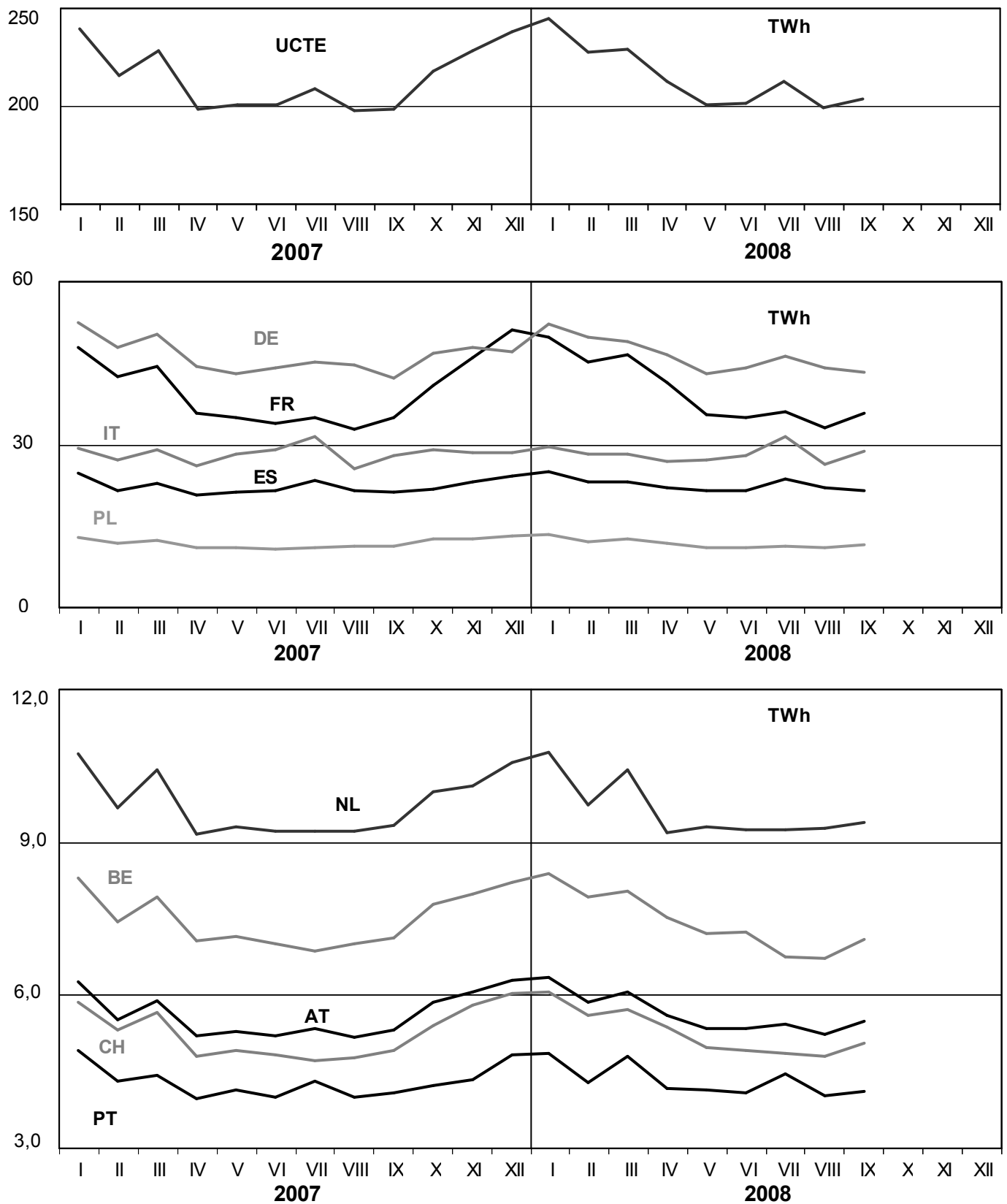
<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and Ukraine

These physical energy flows were measured on the cross-frontier transmission lines (≤ 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.

# 3

## Monthly consumption

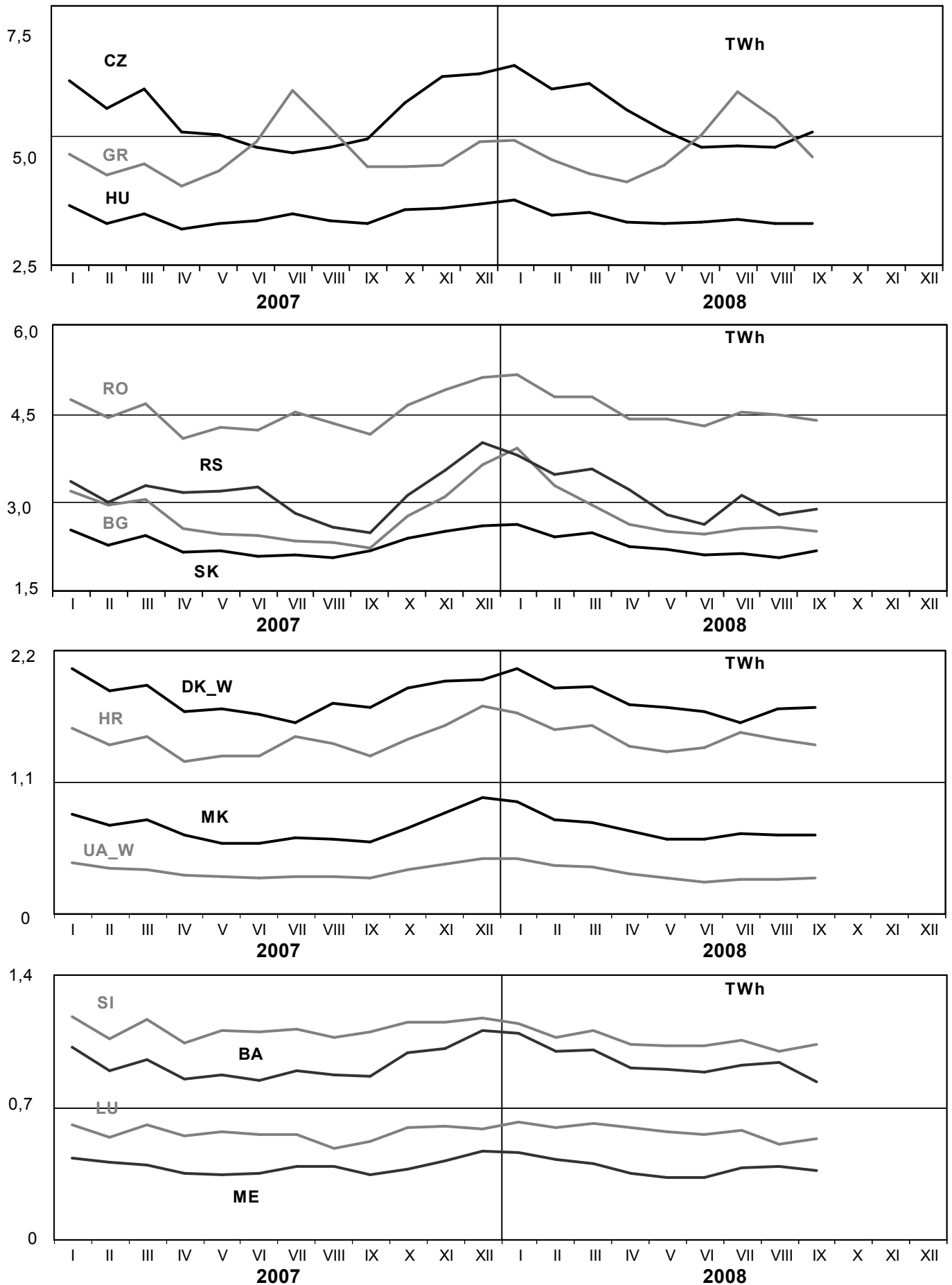
September 2008



# 3

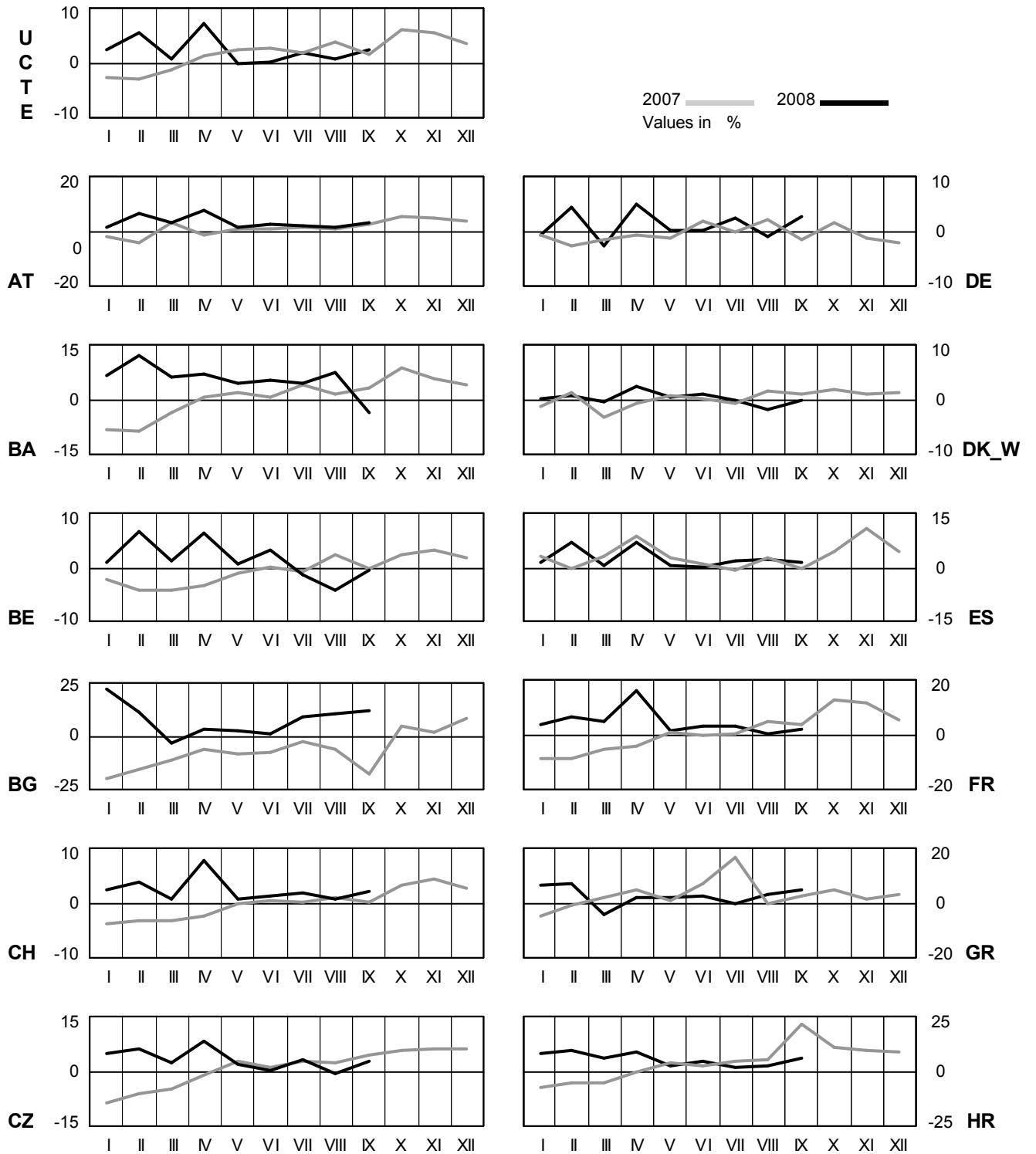
## Monthly consumption

September 2008



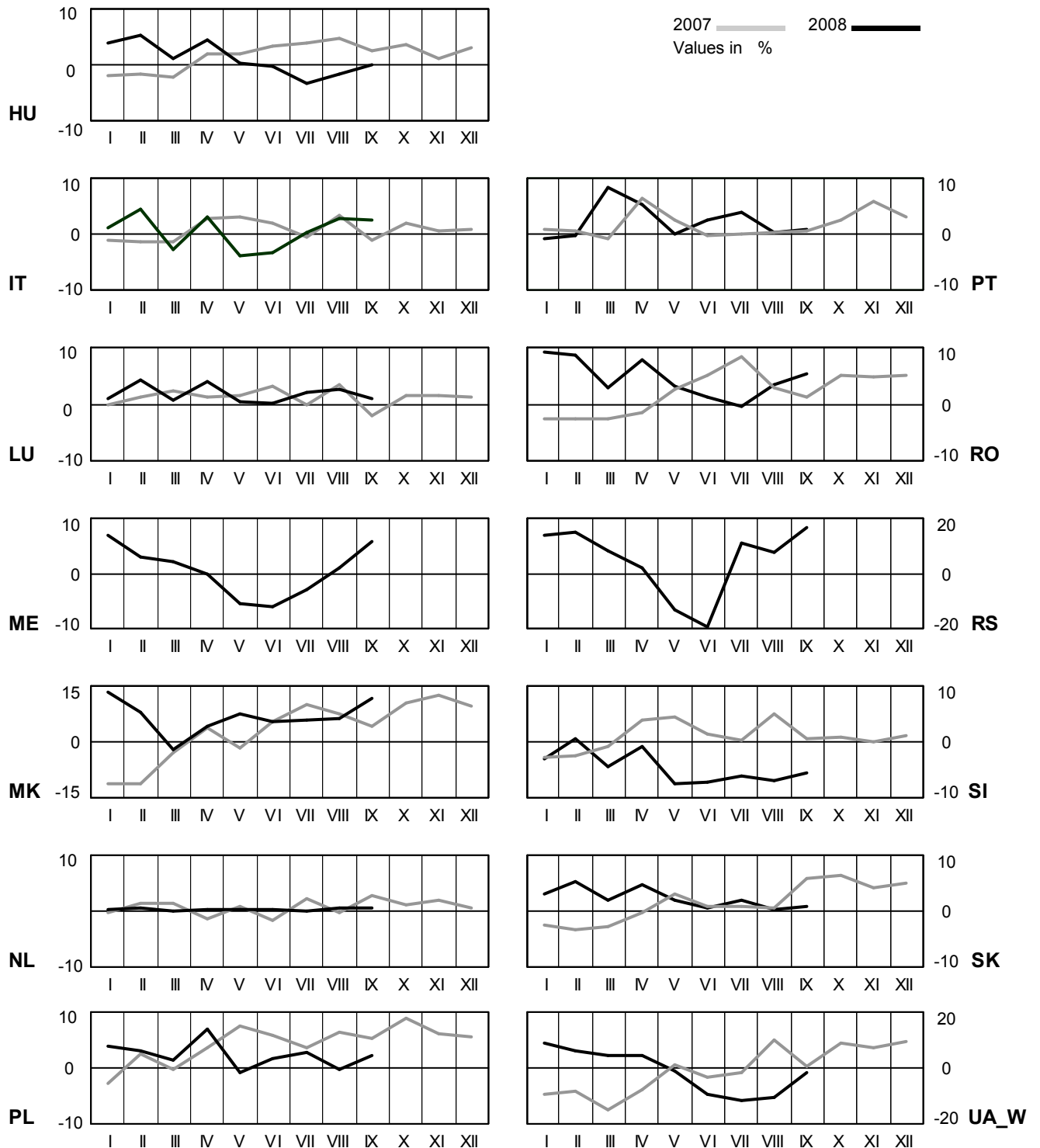
# 4 Monthly consumption variation

September 2008



# 4 Monthly consumption variation

September 2008

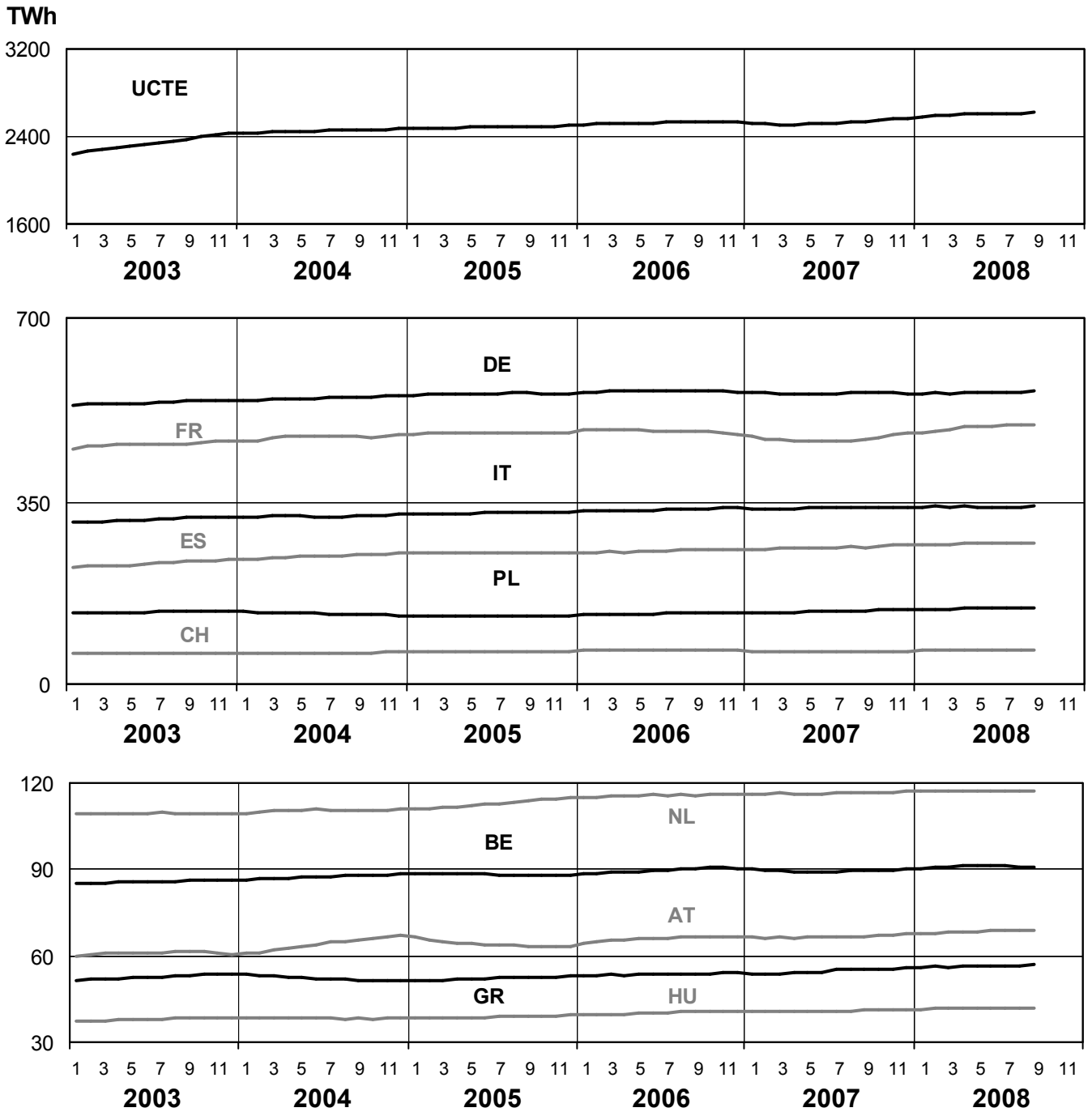




# 5

## Consumption of the last 12 months

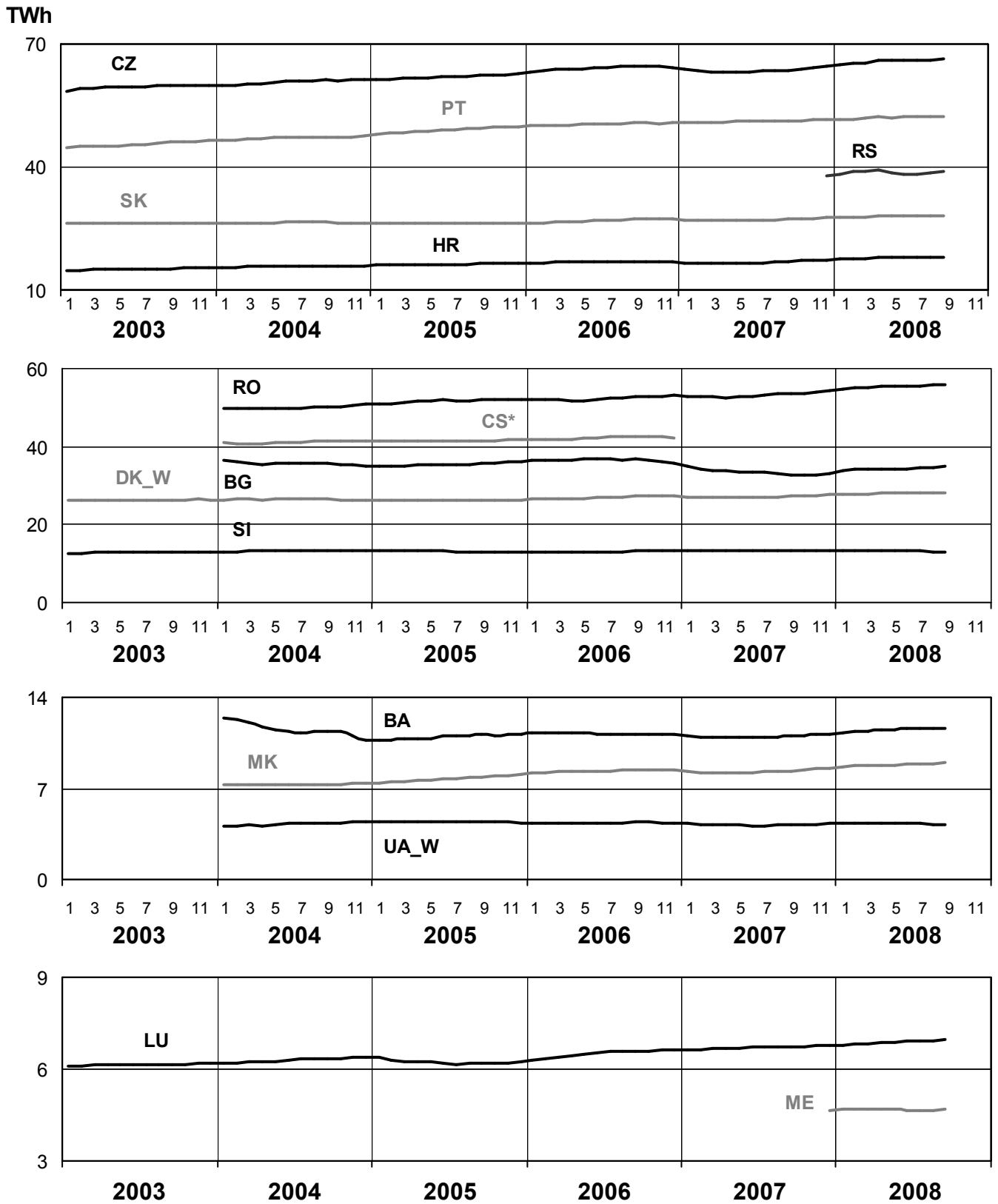
September 2008



# 5

## Consumption of the last 12 months

September 2008

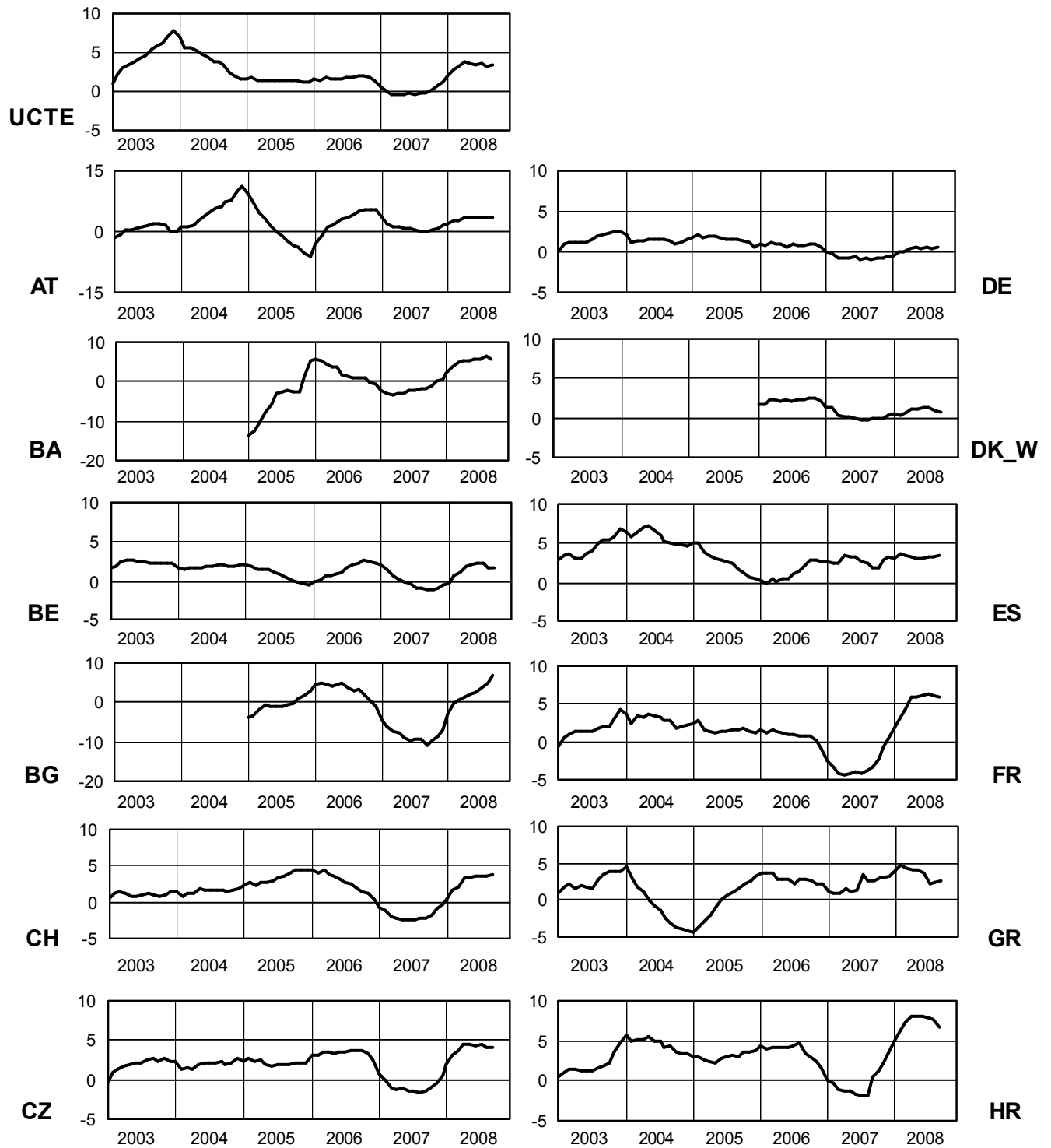


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

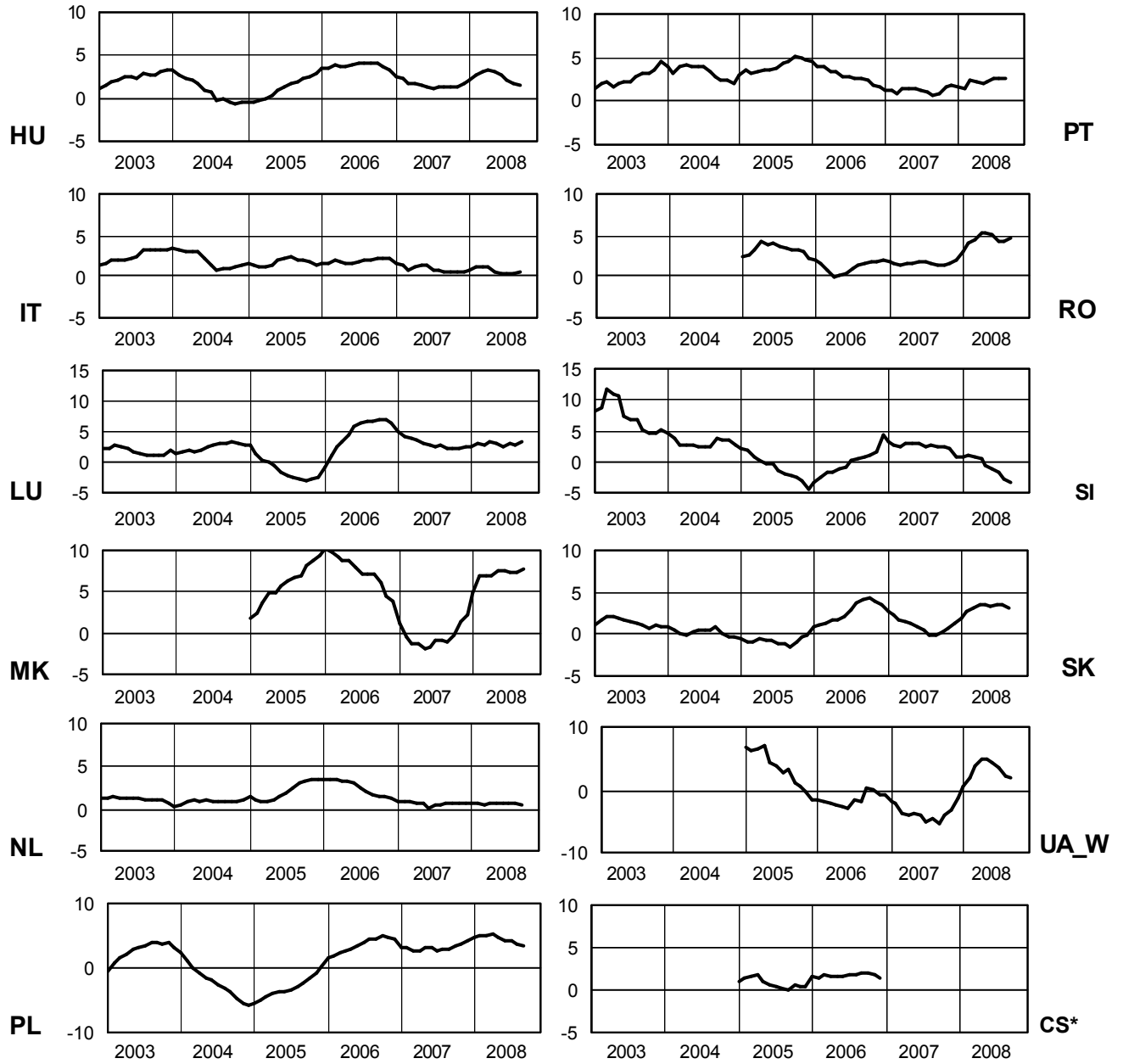
September 2008



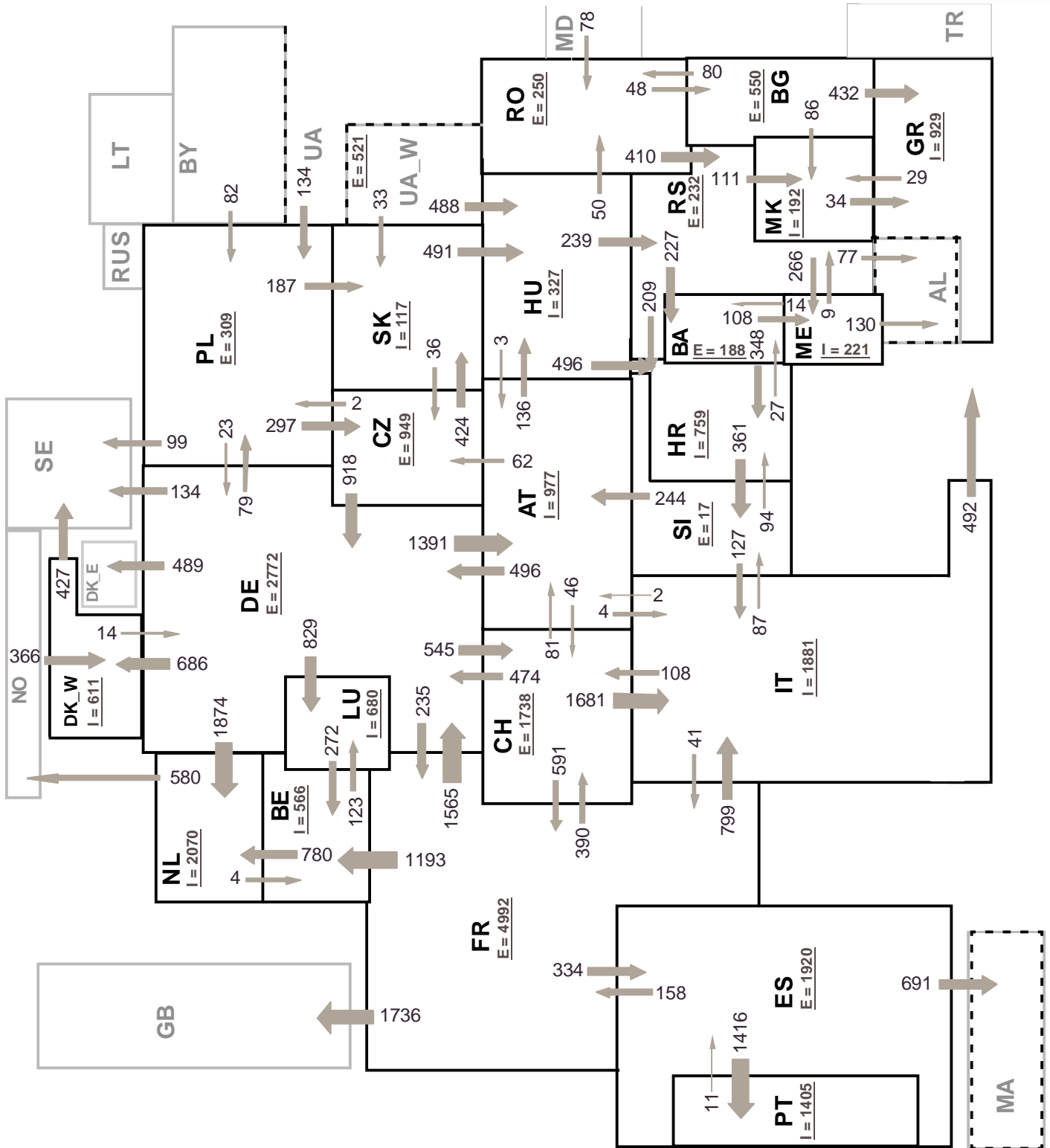
# 6

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

September 2008



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



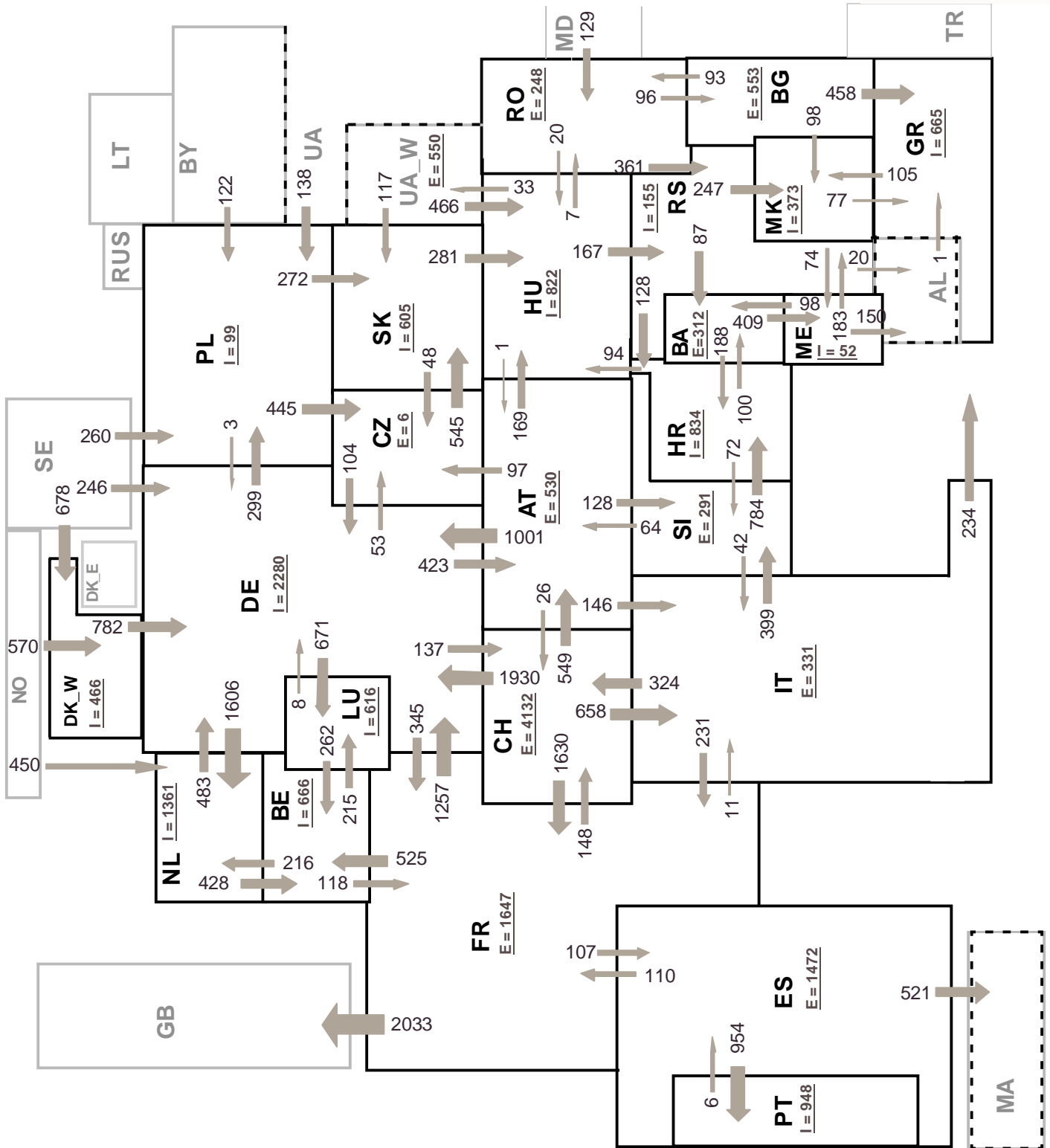
Sum of load flows in MW

UCTE = 23429 MW

Total = 28973 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



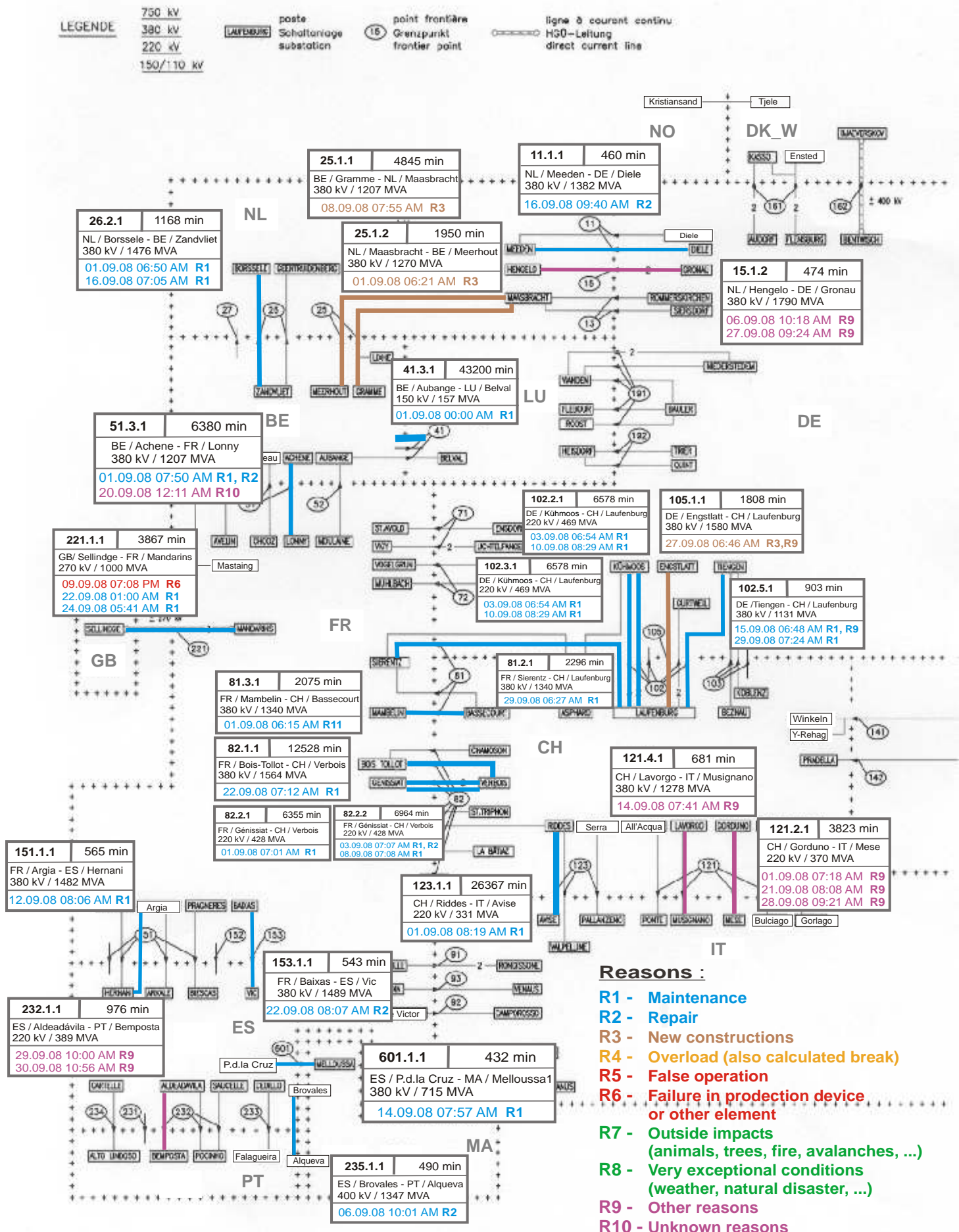
Sum of load flows in MW

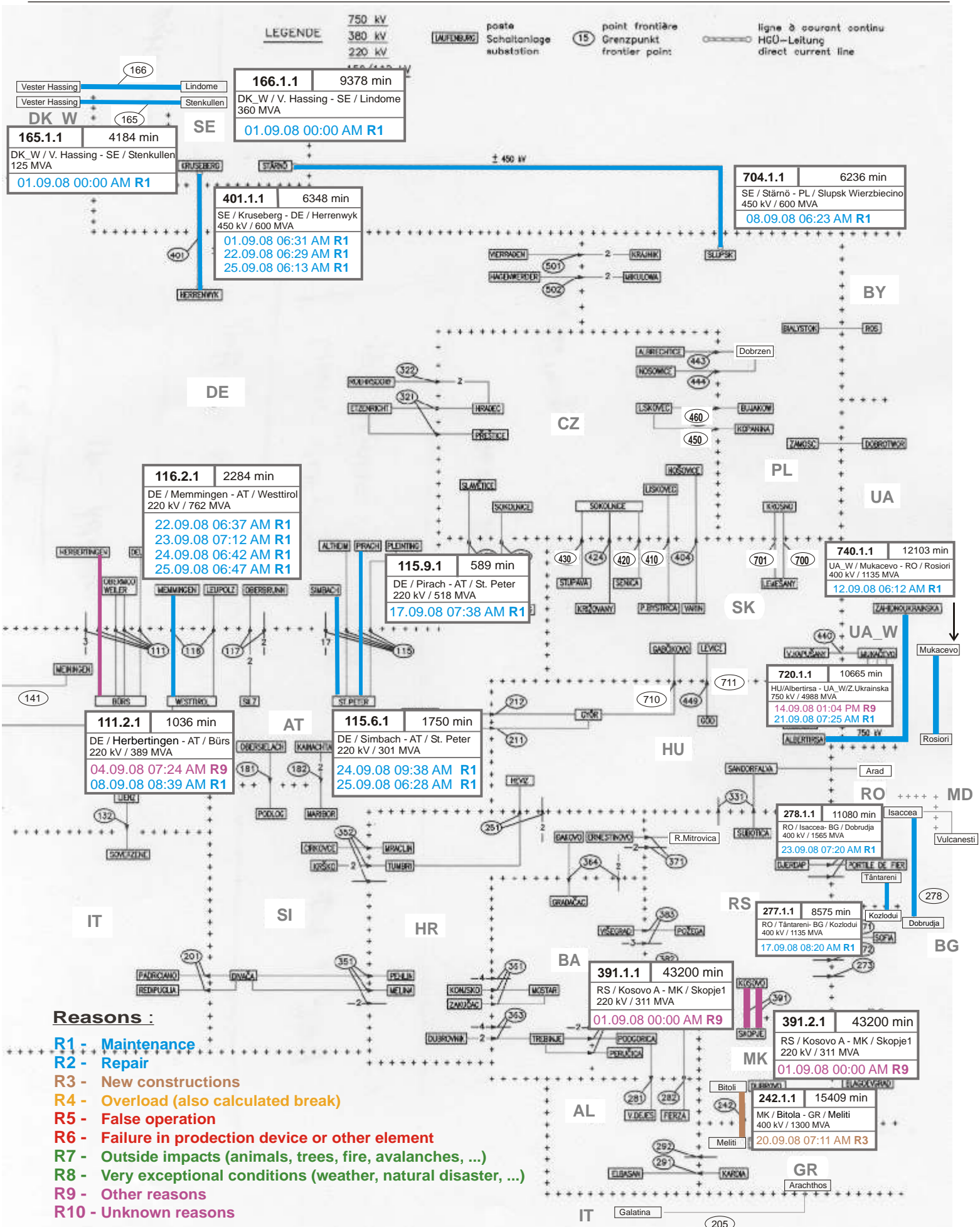
UCTE = 22437 MW

Total = 28371 MW

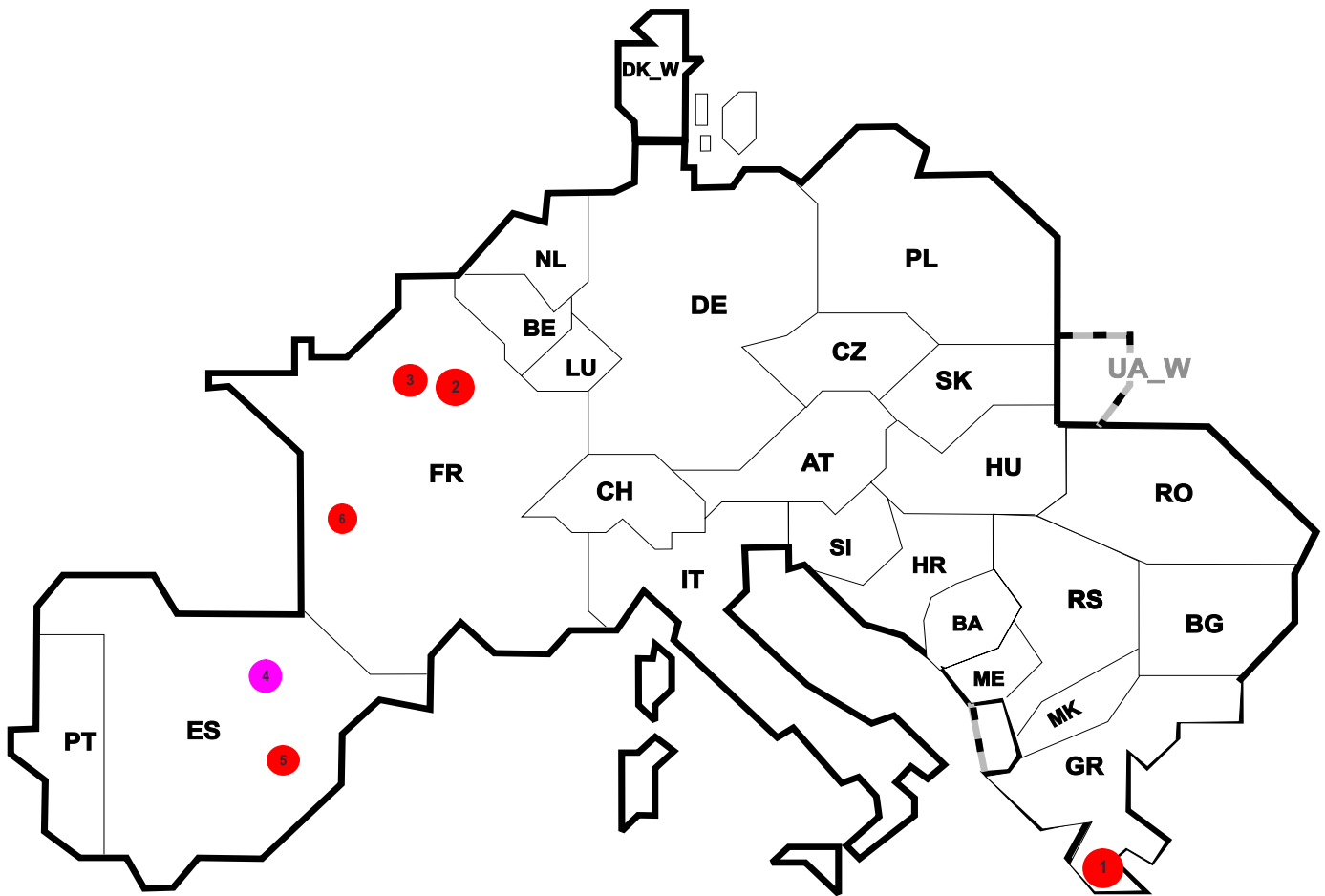
Synchronous operation with UCTE region

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, ...)  
(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	GR	Lavrion	R6	724	724	60	6,727
2	FR	Alsace	R6	39	93	25	0,041
3	FR	Perret	R6	32	50	39	0,035
4	ES	Sidenorb	R9	4	24120	15	0,008
5	ES	Albarelo	R5	1	5070	12	0,002
6	FR	Fleac	R6	1	39	152	0,001

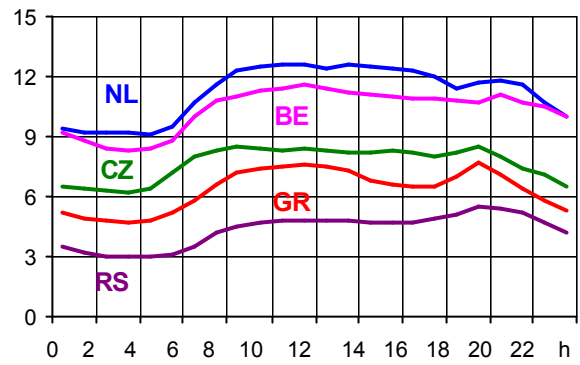
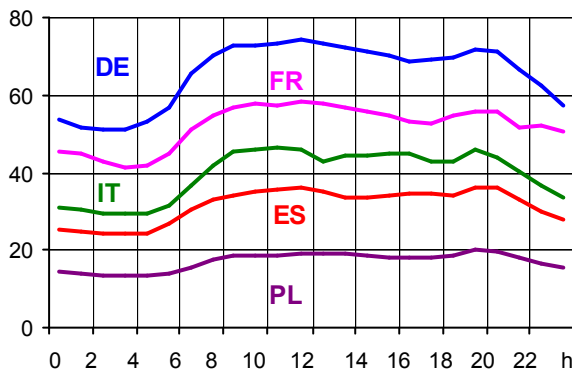
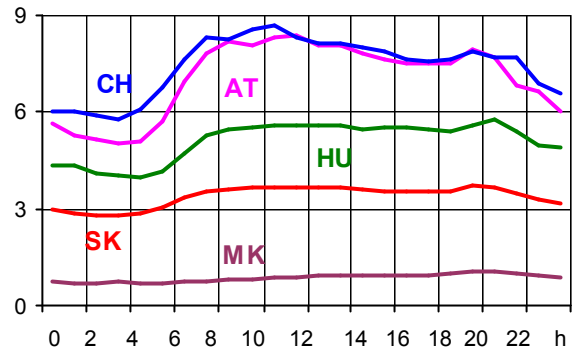
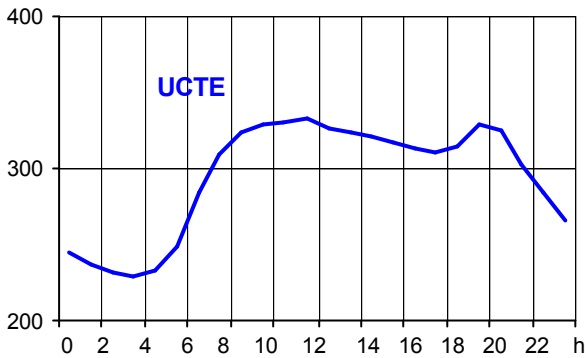
<sup>1</sup> ( year [in min] \* energy not supplied ) / consumption last 12 months

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	522101	1033560	2226	289	2138	586
BA	368459	242478	286	141	426	141
BE	229451	958543	1376	1802	214	843
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2443159	915385	2635	925	4100	0
CZ	1479298	921100	2178	1173	1776	1757
DE	2813625	1581711	3276	2991	2501	4592
DK_W	988140	199083	831	158	2244	0
ES	1335485	404387	2418	485	1805	300
FR	6708830	3172246	9638	4573	9316	7614
GR	32051	455161	0	930	0	650
HR	14548	565351	0	758	45	913
HU	600360	979673	911	1237	762	1586
IT	337451	3083390	772	2569	1188	859
ME	249641	351325	150	388	150	388
MK	3400	235000	0	245	0	351
NL	594139	1888616	736	3091	858	2208
PL	190935	258848	400	140	300	398
PT	5930	718701	0	1400	0	980
RO	299035	88820	318	88	382	152
RS	403540	324818	515	258	468	407
SI	594749	525531	733	724	1148	850
SK	508716	675254	590	632	758	1247
UA_W	354779	9904	520	0	550	0

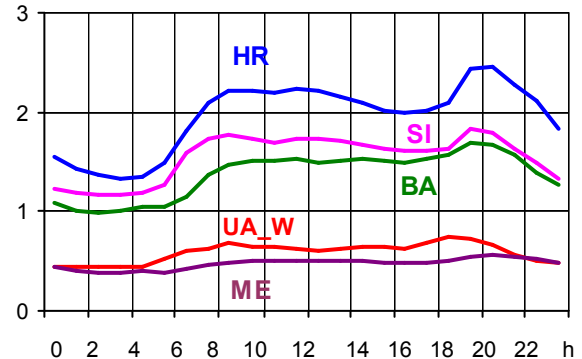
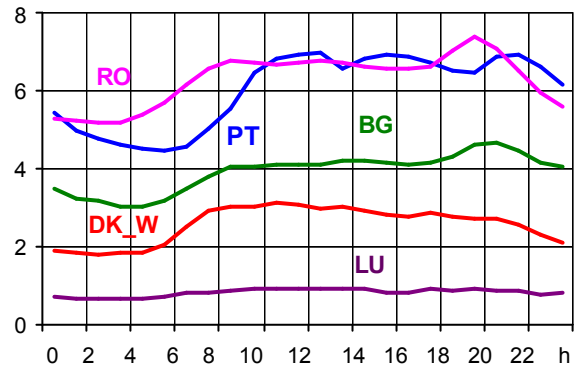
- Control areas can differ from national borders ( i.e. German block which includes parts of AT, LU and DK ).
- Values are calculated on an hourly base ( MWh ).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the 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 17.09.2008 CET

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %
AT	8406	8,7	100
BA	1682	8,0	100
BE <sup>2</sup>	11635	-0,7	100
BG	4691	-1,4	100
CH	8705	-1,0	100
CZ	8526	3,1	100
DE	74224	-1,5	91
DK_W	3105	-2,3	100
ES	36329	2,4	98
FR	58173	0,3	100
GR	7659	-2,3	100
HR	2463	4,8	100
HU	5770	1,2	100
IT	46305	-6,0	100
LU	947	0,1	100
ME	565	4,1	100
MK	1067	4,5	100
NL	12586	-5,4	100
PL <sup>3</sup>	19889	1,5	100
PT	6967	-1,9	97
RO	7364	5,1	100
RS	5536	12,6	100
SI	1823	-6,9	100
SK	3708	1,3	100
<b>UCTE</b>	<b>333078</b>	<b>0,2</b>	
UA_W	754	8,5	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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