



# May 2009

Monthly provisional values as of 19 November 2009

European Network of Transmission System Operators for Electricity

**Regional Group Continental Europe**



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

- Country code UCTE represents the ENTSO-E Regional Continental Europe (former all countries of the Union for the Co-ordination of Transmission of Electricity)
- 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 ENTSO-E Regional Continental Europe (Jutland and Funen).
- UA\_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with ENTSO-E Regional Continental Europe
- 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	1039	4497	0	0	919	6455	-1099	331	5025	-6,3	66907	-2,4
BA	0	681	380	0	0	0	1061	-230	0	831	-8,5	11298	-1,8
BE <sup>2</sup>	3747	2613	150	327	63	0	6837 <sup>1</sup>	-241	152	6444	-10,7	85444	-6,4
BG	819	1342	437	0	0	0	2598	-256	49	2293	-9,1	33831	-1,1
CH	2365	163	3890	97	2	0	6515 <sup>1</sup>	-1467	283	4765	-4,3	63858	-0,6
CZ	1949	3206	221	28	21	0	5404 <sup>1</sup>	-781	25	4598	-10,0	63093	-4,3
DE	10092	21995	2229	5756	2962	0	40072 <sup>1</sup>	1084	566	40590	-5,7	541759	-3,0
DK_W	0	1011	1	532	430	0	1544 <sup>1</sup>	37	0	1581	-8,3	21180	-3,2
ES	3684	10899	2749	3294	2617	33	20659	-437	244	19978	-6,3	263186	-3,0
FR	29882	1774	7064	905	542	0	39625	-4521	622	34482	-2,7	493188	0,0
GR	0	3327	352	138	111	0	3817 <sup>1</sup>	420	31	4206	-4,6	55492	-1,4
HR	0	246	612	3	2	1	862 <sup>1</sup>	479	8	1333	-1,5	17679	-1,1
HU	1074	1614	0	0	0	0	2688 <sup>1</sup>	562	0	3250	-1,6	41034	-1,9
IT	0	15194	5921	1056	621	0	22171	3796	546	25421	-8,2	326821	-4,4
LU	0	221	54	13	4	0	288	281	66	503	-12,2	6248	-9,4
ME <sup>3</sup>	0	7	96	0	0	0	103	223	0	326	n.a.	3693	n.a.
MK	0	278	165	0	0	0	443	90	0	533	-15,8	8295	-5,6
NL	359	6973	0	716	404	0	8048 <sup>1</sup>	989	0	9037	-5,2	118151	-0,2
FL <sup>4</sup>	0	9657	203	92	77	0	9952 <sup>1</sup>	39	68	9923	-9,8	138977	-3,4
PT	0	2384	514	682	513	0	3580 <sup>1</sup>	538	94	4024	-2,3	51683	0,0
RO	570	1895	1626	0	0	0	4091	-163	10	3918	-11,0	52842	-4,8
RS	0	2028	974	0	0	0	3002	175	83	3094	11,3	39573	2,2
SI	448	299	519	0	0	0	1266	-394	0	872	-15,4	11963	-9,9
SK	934	605	427	33	0	0	1999 <sup>1</sup>	-70	24	1905	-14,2	26459	-5,4
UCTE	55923	89451	33081	13672	8369	953	193080 <sup>1</sup>	-946	3202	188932	-6,0	2542654	-2,5
UA_W	0	363	8	0	0	0	371	-101	0	270	-11,8	3989	-8,5

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

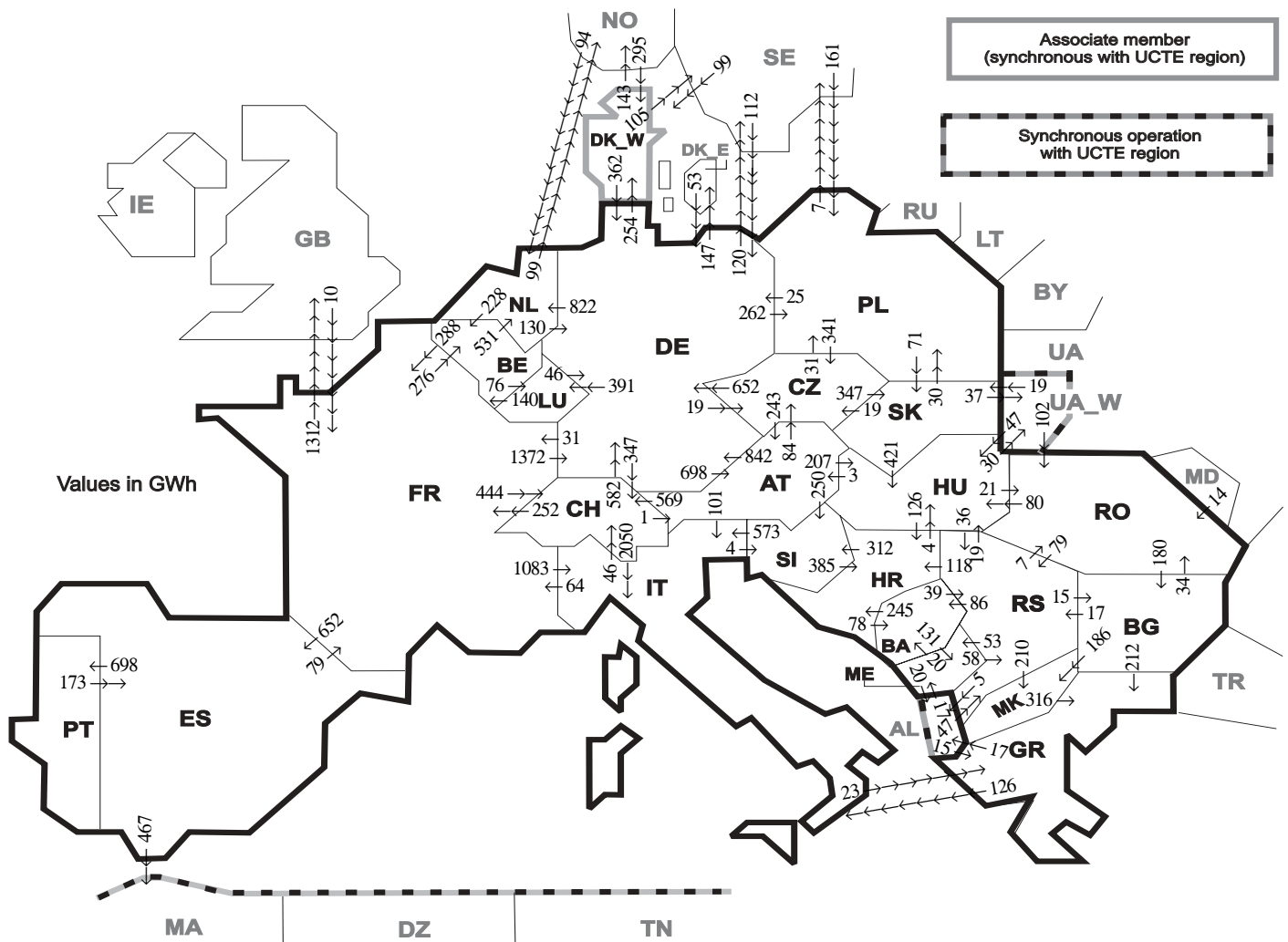
<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations

<sup>3</sup> Monthly national values as of May 2008

<sup>4</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	98	100	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	-	-	-	-	569	84	842	-	-	-	-	-	207	101	-	-	-	-	-	-	-	-	250	-	-	-	2053	
BA	-	-	-	-	-	-	-	-	-	-	-	245	-	-	-	131	-	-	-	-	-	39	-	-	-	-	415	
BE	-	-	-	-	-	-	-	-	288	-	-	-	-	-	76	-	531	-	-	-	-	-	-	-	-	-	895	
BG	-	-	-	-	-	-	-	-	-	-	212	-	-	-	-	186	-	-	-	-	34	17	-	-	-	0	449	
CH	1	-	-	-	-	-	582	-	-	252	-	-	-	2050	-	-	-	-	-	-	-	-	-	-	-	-	2885	
CZ	243	-	-	-	-	-	652	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	347	-	-	1273	
DE	698	-	-	-	347	19	-	254	31	-	-	-	-	391	-	-	-	822	262	-	-	-	-	-	-	267	3091	
DK_W	-	-	-	-	-	-	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	610	
ES	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	698	-	-	-	-	-	-	467	1244
FR	-	-	276	-	444	-	1372	-	652	-	-	-	-	1083	-	-	-	-	-	-	-	-	-	-	-	-	1312	5139
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	126	-	-	0	-	-	-	-	-	-	-	-	-	17	143
HR	-	78	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	0	312	-	-	-	394	
HU	3	-	-	-	-	-	-	-	-	-	-	126	-	-	-	-	-	-	-	-	21	36	-	0	30	-	216	
IT	0	-	-	-	46	-	-	-	-	64	23	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	137	
LU	-	-	140	-	-	-	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	186	
ME	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	-	-	-	20	98	
MK	-	-	-	0	-	-	-	-	-	-	-	316	-	-	-	-	-	-	-	-	-	-	0	-	-	-	316	
NL	-	-	228	-	-	-	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	457	
PL	-	-	-	-	-	341	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	7	444	
PT	-	-	-	-	-	-	-	-	-	173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	173	
RO	-	-	-	180	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	79	-	-	0	0	339	
RS	-	86	-	15	-	-	-	-	-	-	-	118	19	-	53	210	-	-	-	-	7	-	-	-	-	5	513	
SI	0	-	-	-	-	-	-	-	-	-	-	385	573	-	-	-	-	-	-	-	-	-	-	-	-	-	958	
SK	-	-	-	-	-	19	-	-	-	-	-	-	421	-	-	-	-	-	30	-	-	-	-	-	37	-	507	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-	-	-	102	-	-	19	-	-	168	
Other III <sup>1</sup>	-	-	-	0	-	-	165	394	0	10	15	-	-	-	-	17	-	94	161	-	14	47	-	-	-	-	917	
<b>Sum imp</b>	<b>945</b>	<b>184</b>	<b>644</b>	<b>195</b>	<b>1406</b>	<b>463</b>	<b>4176</b>	<b>648</b>	<b>825</b>	<b>724</b>	<b>566</b>	<b>874</b>	<b>778</b>	<b>3933</b>	<b>467</b>	<b>201</b>	<b>396</b>	<b>1447</b>	<b>484</b>	<b>698</b>	<b>178</b>	<b>276</b>	<b>566</b>	<b>437</b>	<b>67</b>	<b>2442</b>	<b>24020</b>	

Sum of physical energy flows between UCTE countries = 20426GWh Total physical energy flows = 24020GWh

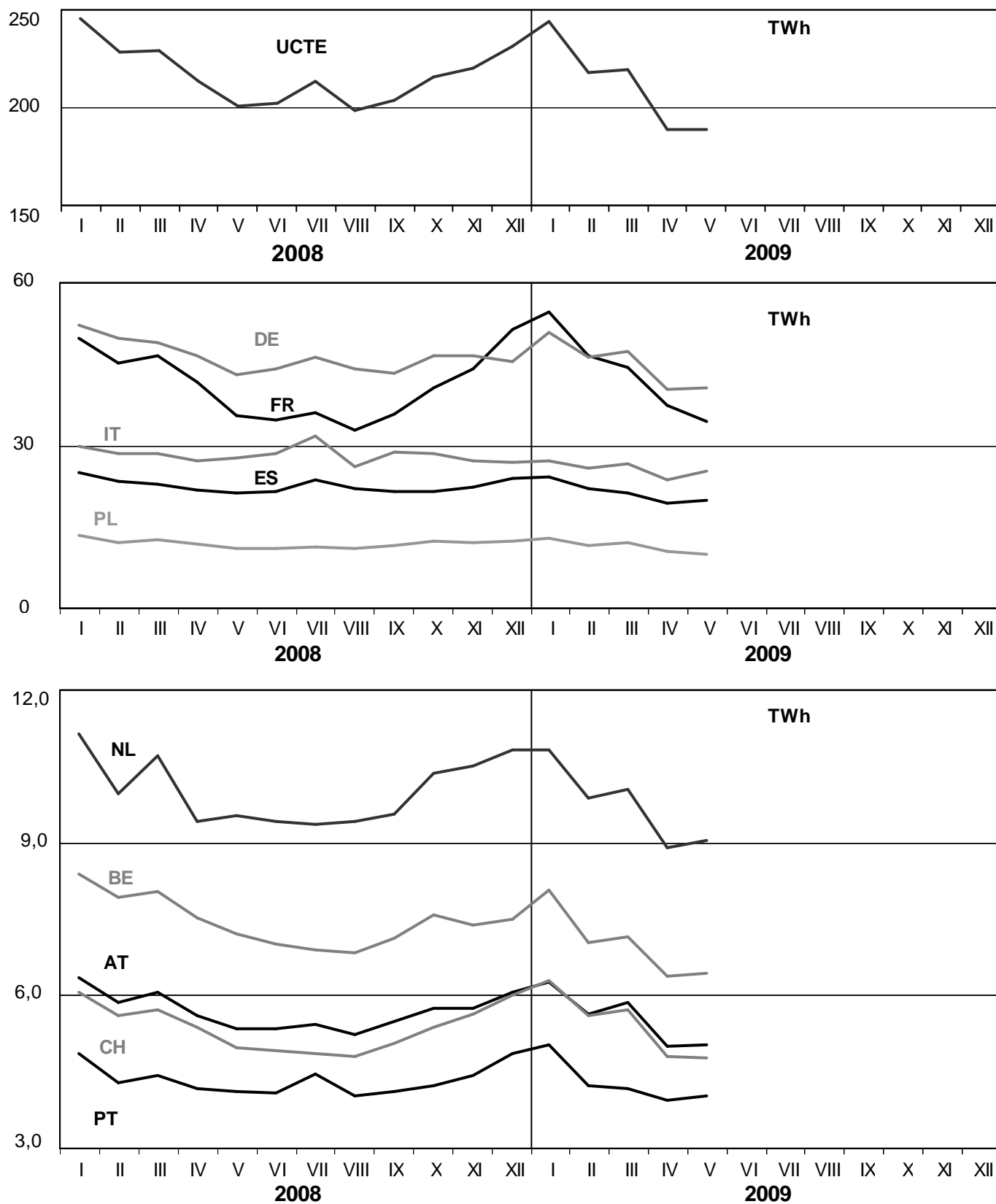
<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and Ukraine

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

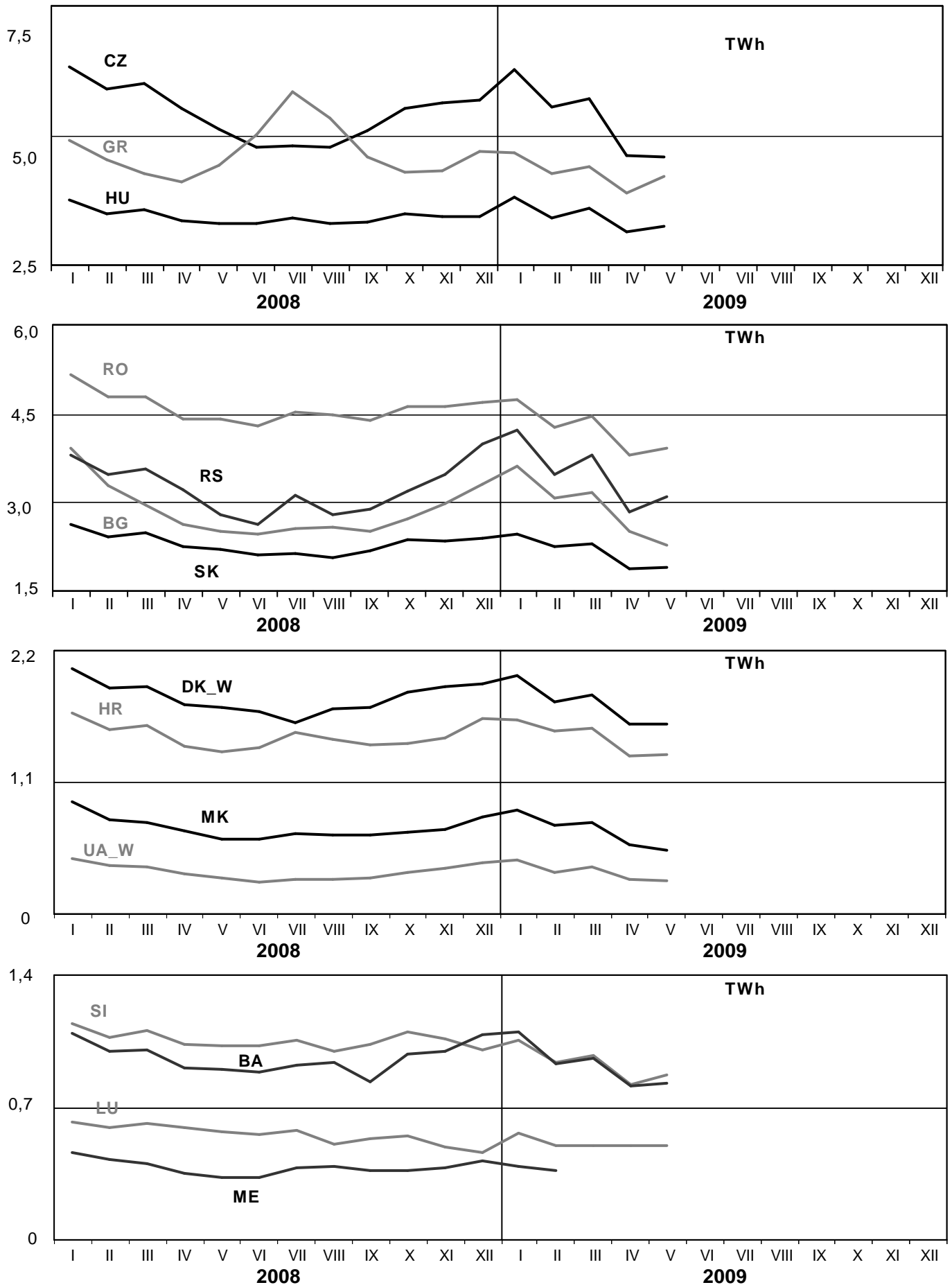
May 2009



# 3

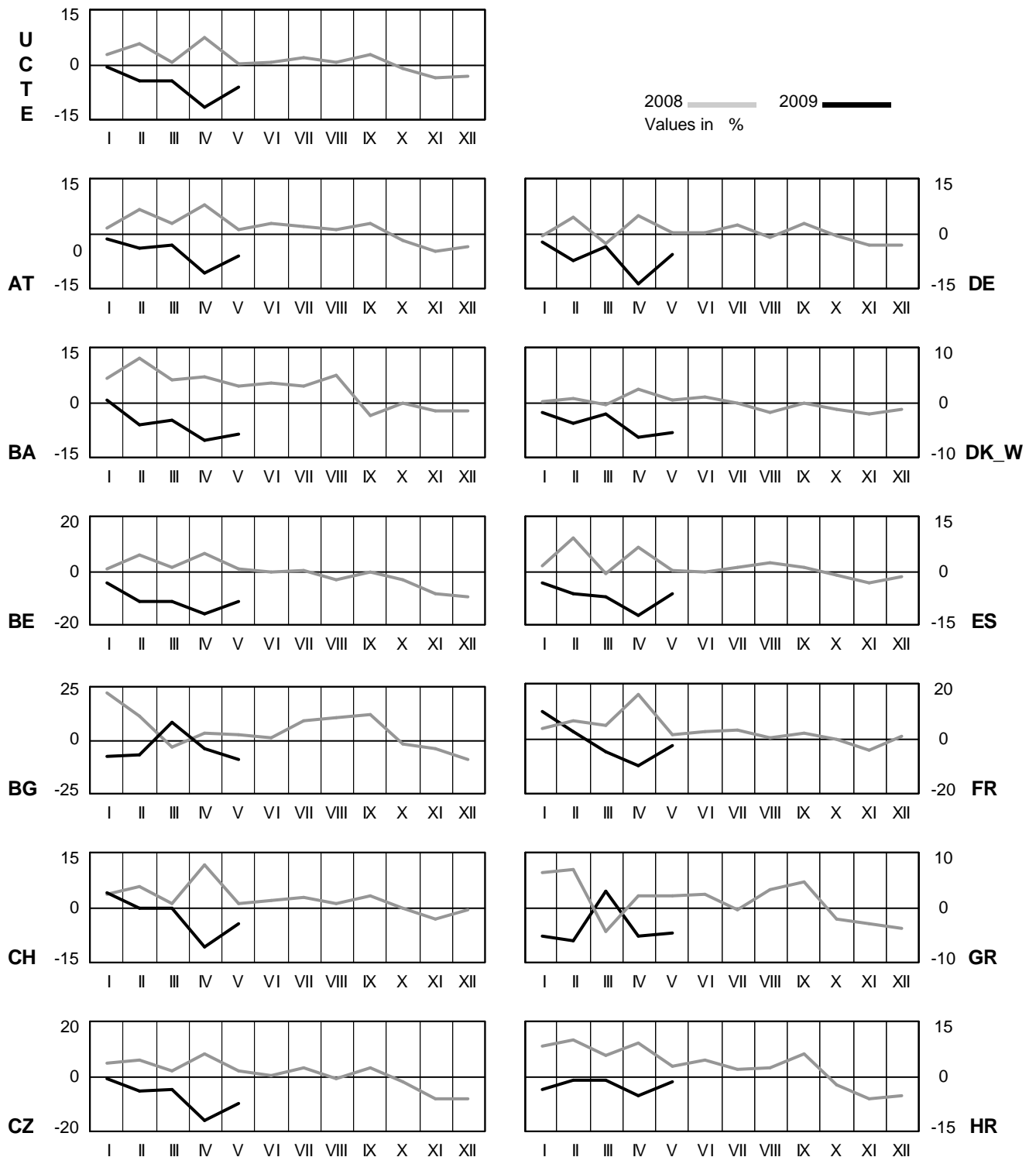
## Monthly consumption

May 2009



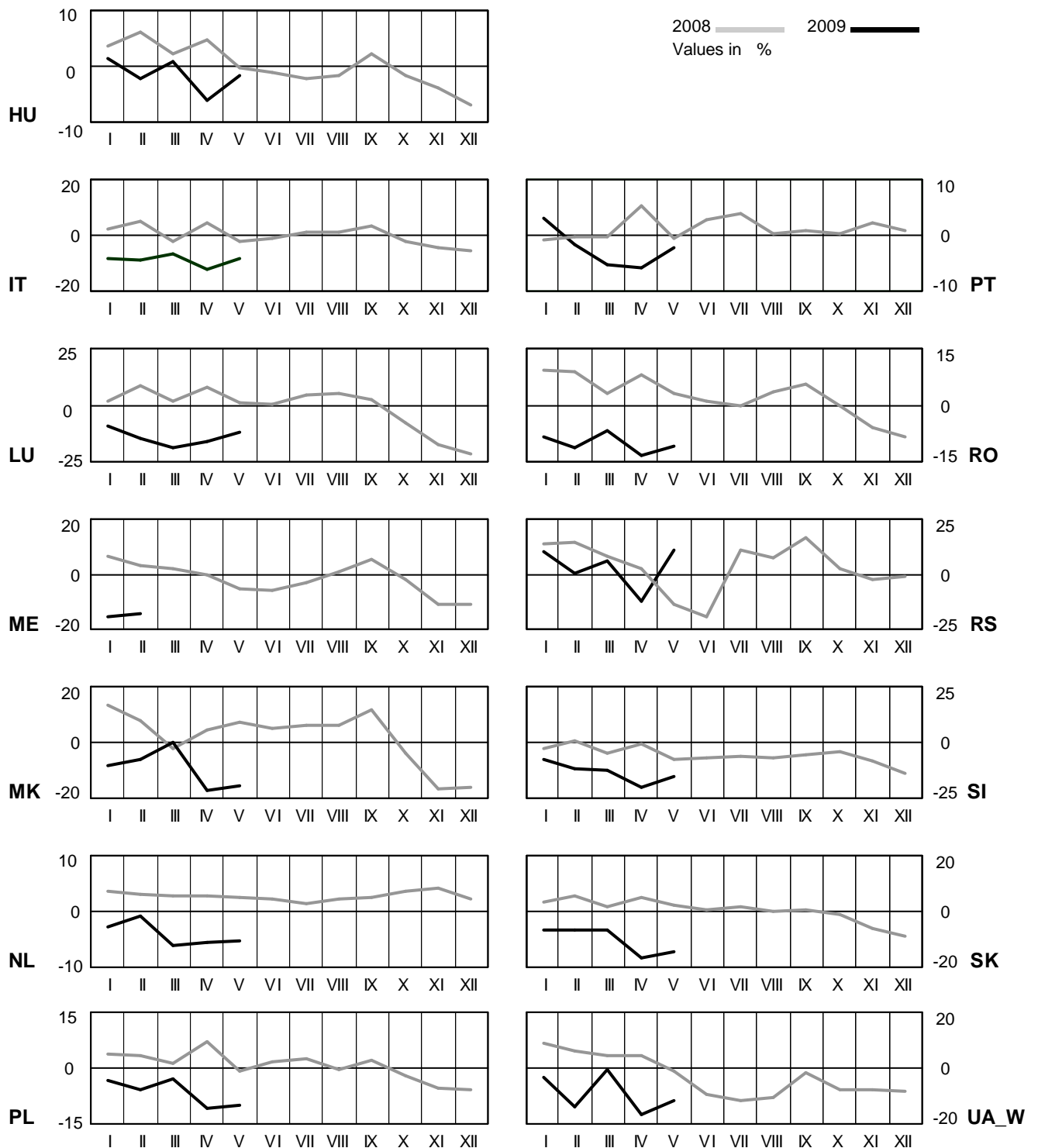
# 4 Monthly consumption variation

May 2009



# 4 Monthly consumption variation

May 2009

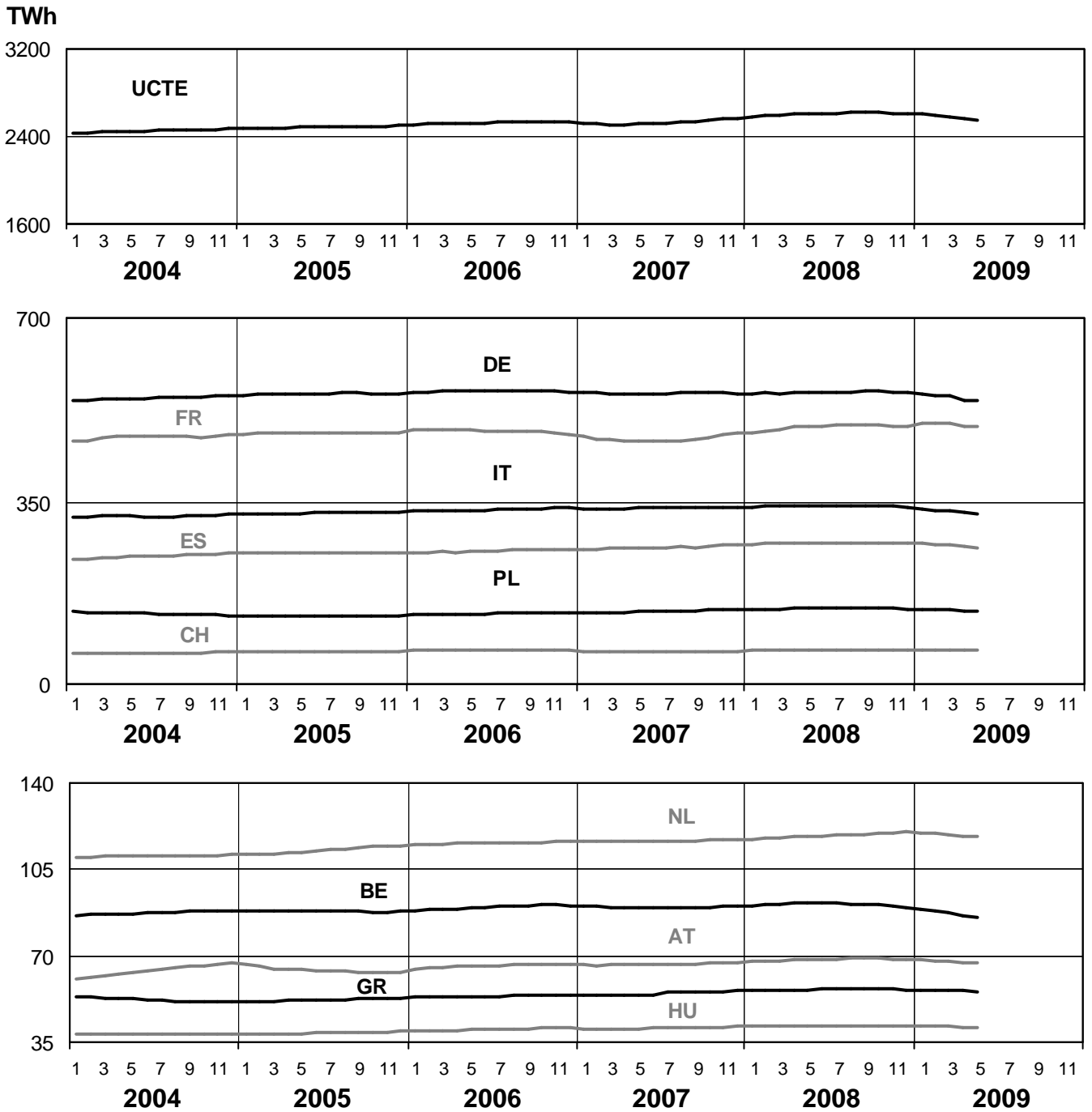




# 5

## Consumption of the last 12 months

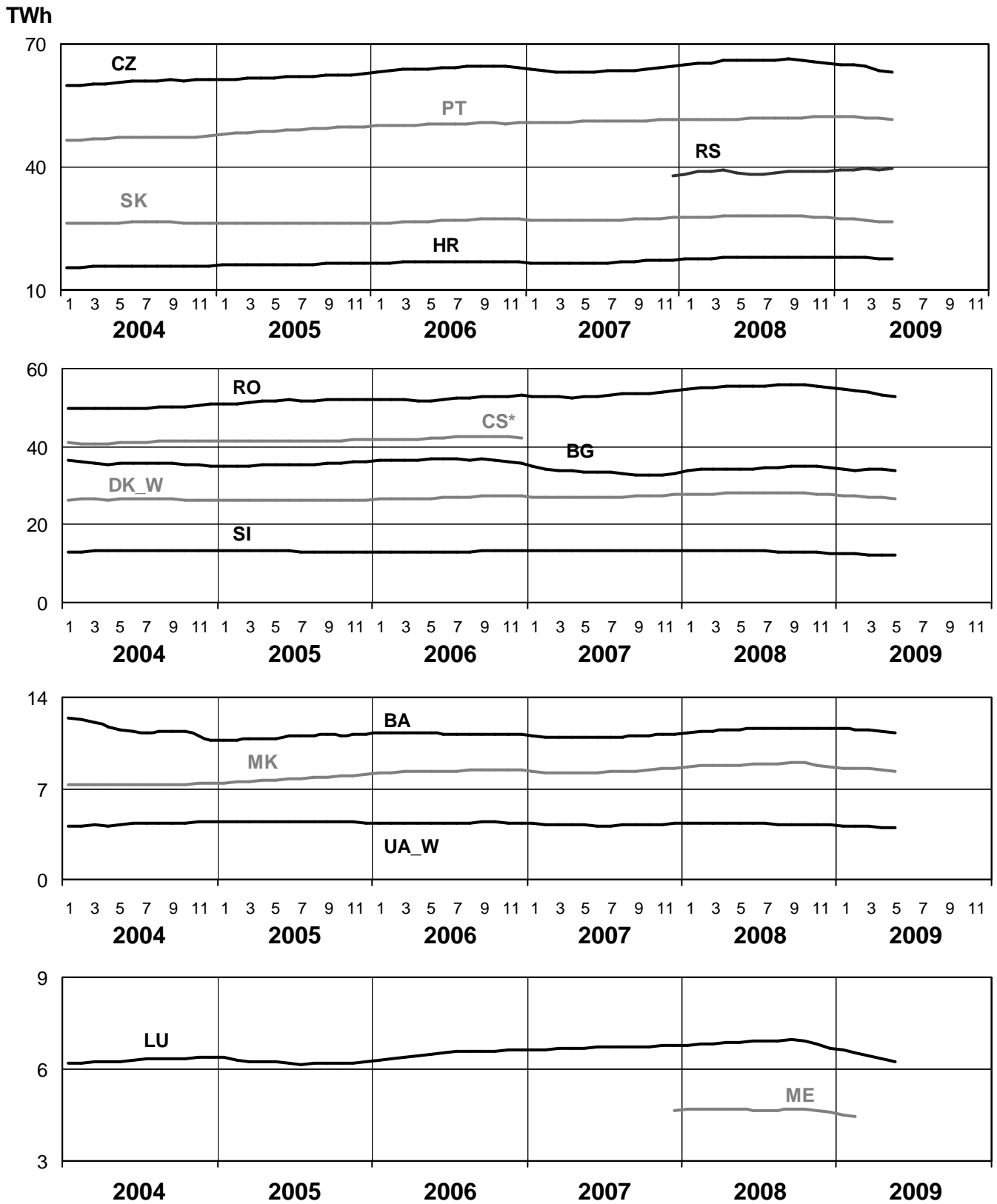
May 2009



# 5

## Consumption of the last 12 months

May 2009

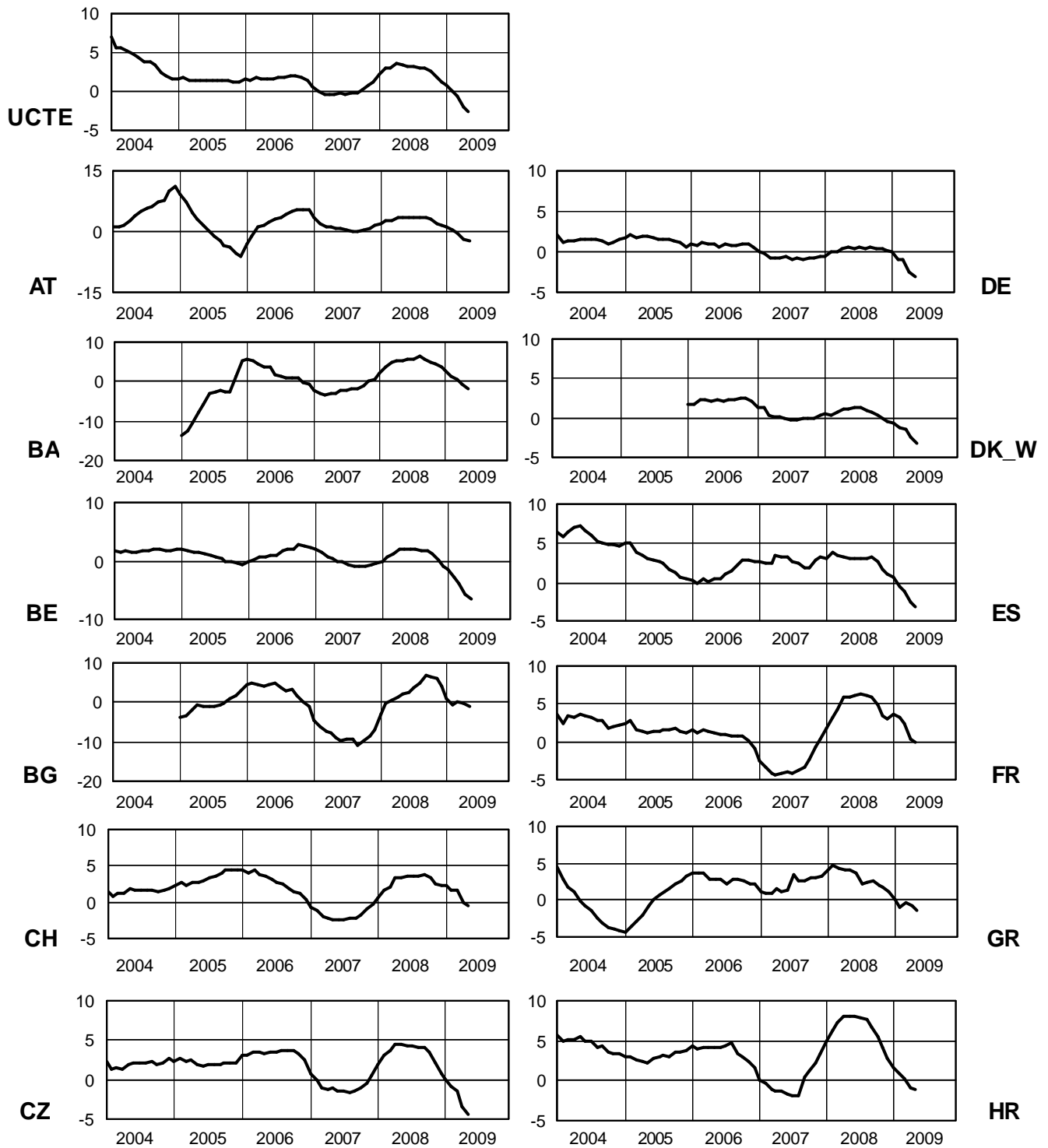


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

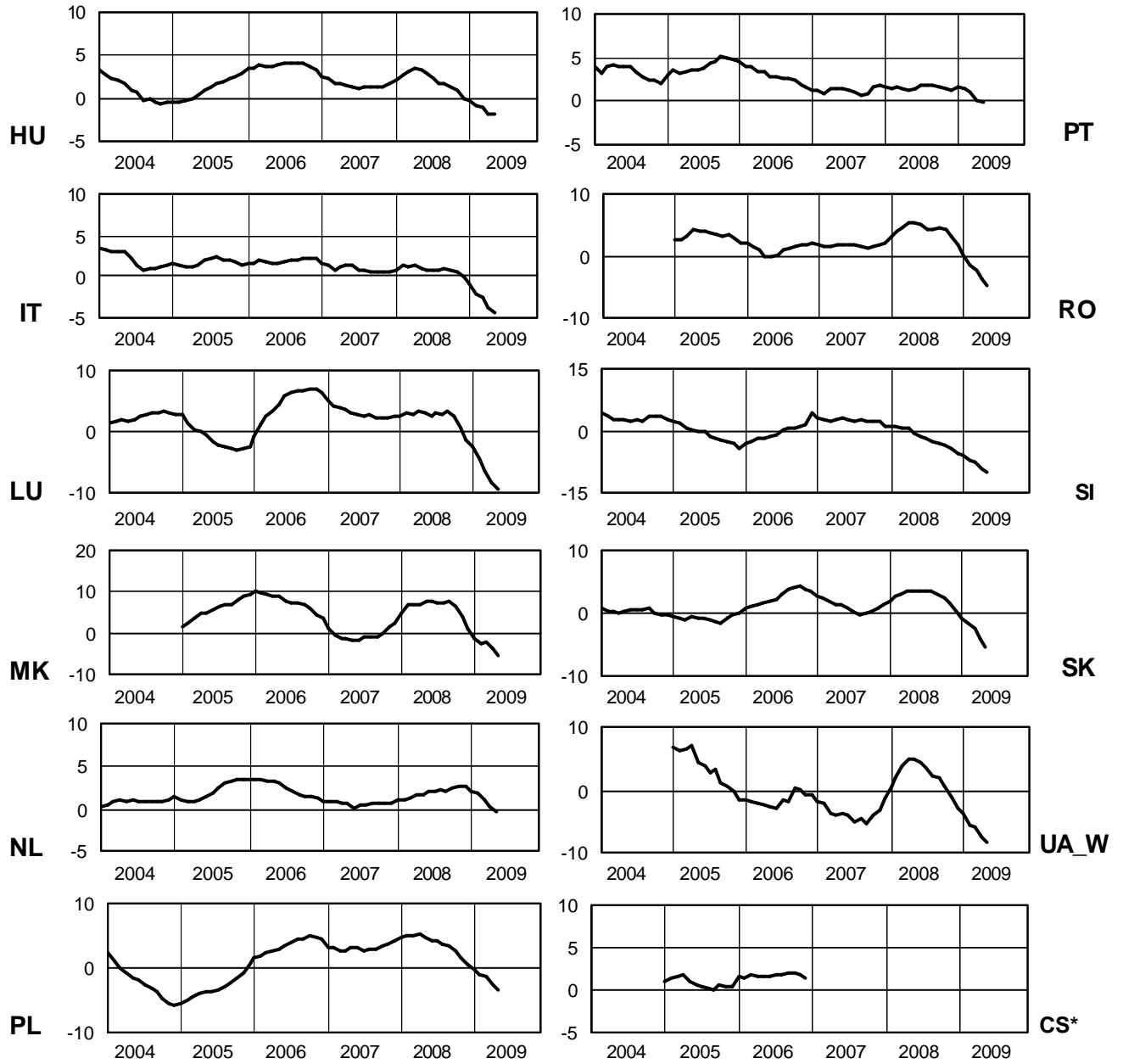
May 2009



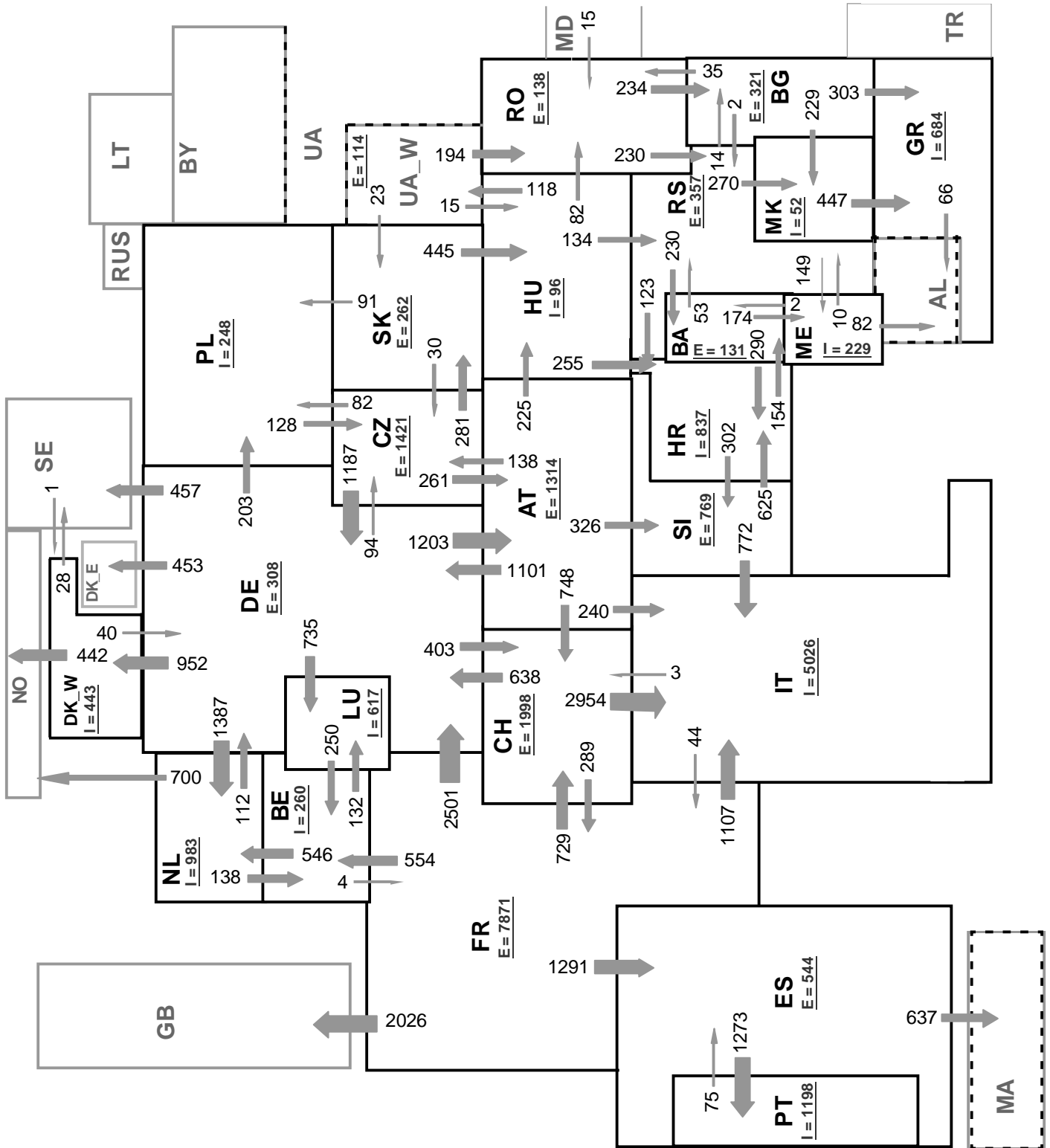
# 6

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

May 2009



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



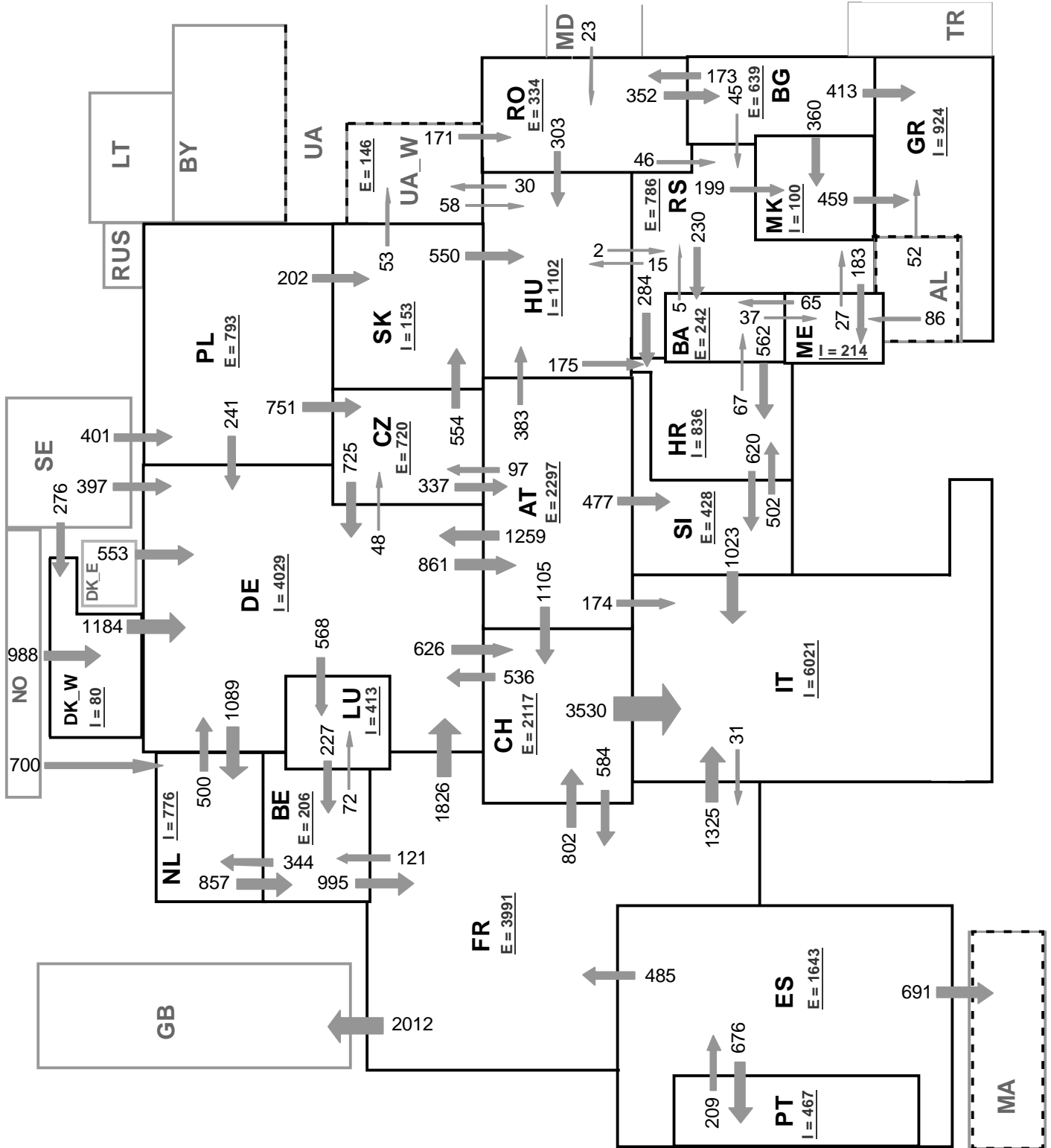
Sum of load flows in MW

UCTE = 28059 MW

Total = 33316 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



Sum of load flows in MW

UCTE = 30498 MW

Total = 36989 MW

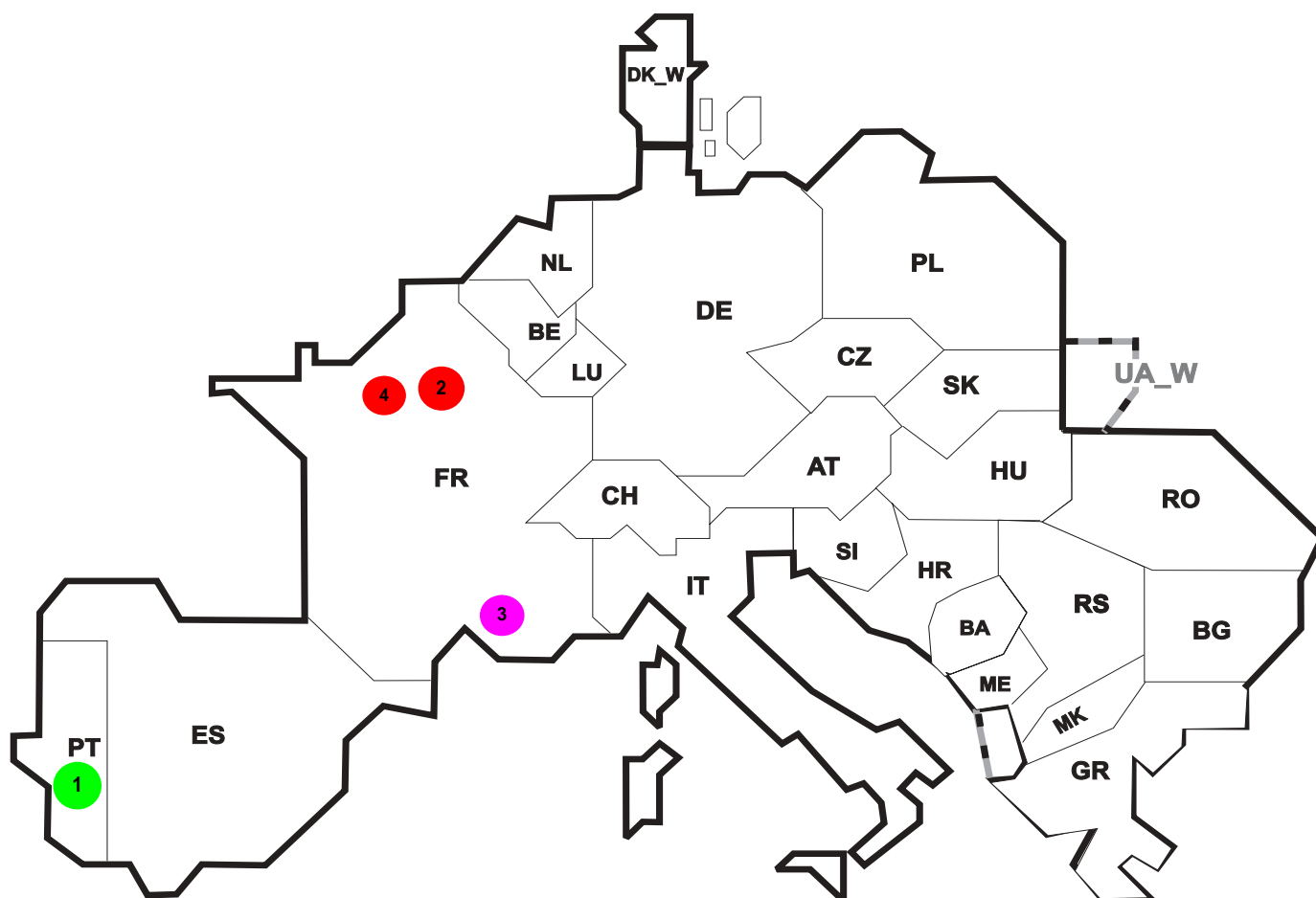
Synchronous operation with UCTE region

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	PT	Siderurgia do Seixal - Longos	R7	15	0	100	0,156
2	FR	Chesnoy	R6	113	29	235	0,121
3	FR	Enco de Botte	R10	4	1	216	0,004
4	FR	Aqueducs	R6	1	15	5	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	421822	798562	903	341	248	515
BA	452366	148622	135	100	189	100
BE	635426	330496	11	158	937	588
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2811372	1341196	3881	1905	4655	2567
CZ	1756932	918775	2441	956	2640	1844
DE	1565661	2788557	2141	4606	4813	2649
DK_W	486159	579900	0	1507	1480	0
ES	1193240	750827	1892	130	1994	300
FR	6991062	2552483	10286	2385	8775	4759
GR	134834	560449	0	690	0	919
HR	49707	529236	964	111	818	0
HU	561063	1122694	1133	1224	769	1858
IT	137060	3932716	47	5073	31	6052
ME	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MK	7500	89800	0	296	0	362
NL	721789	1708607	1398	2413	1473	2252
PL	270325	373084	3	375	1177	479
PT	16913	551497	0	1200	0	494
RO	215919	52892	242	109	427	94
RS	688736	385882	850	429	1299	397
SI	822299	428116	1355	564	1166	736
SK	503084	389960	595	305	580	672
UA_W	95765	0	112	0	147	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.

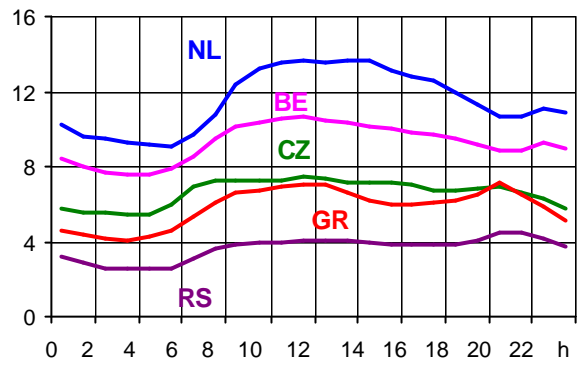
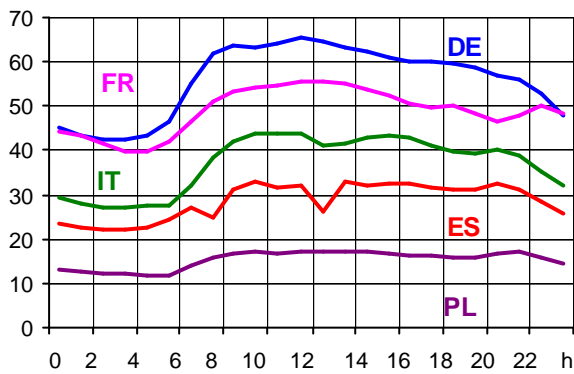
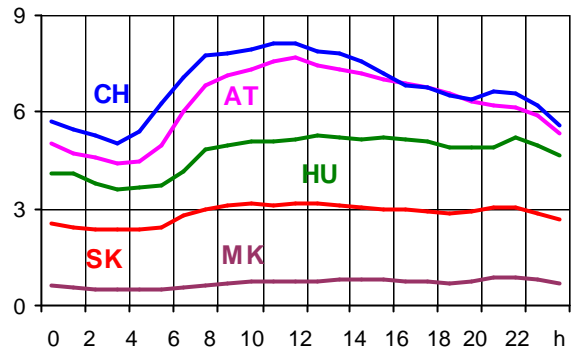
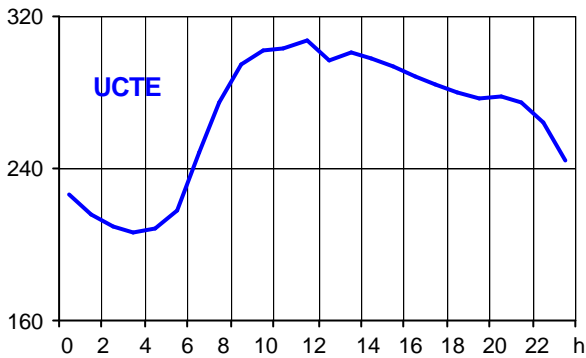
- Export Programs: Sum of all positive values of every hour of every border  
 - Import Programs: Sum of all negative values of every hour of every border

- 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.

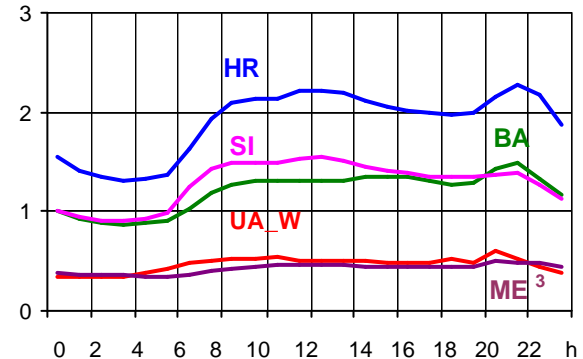
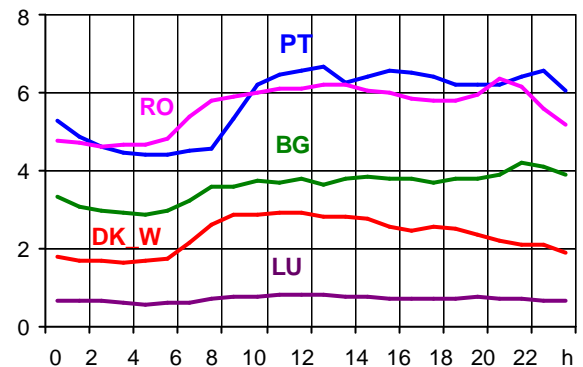
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.  
 - Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

Consumption hourly load curves on 20.05.2009 CET

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %
AT	7684	-4,7	100
BA	1491	-1,3	100
BE <sup>2</sup>	10683	-8,5	100
BG	4185	-6,3	99
CH	8125	-5,8	100
CZ	7423	-14,4	100
DE	65411	-11,0	91
DK_W	2936	-5,0	100
ES	32770	-6,7	98
FR	55634	-3,3	100
GR	7154	-2,9	100
HR	2284	0,7	100
HU	5252	-3,9	100
IT	43903	-6,3	100
LU	810	-18,9	100
ME <sup>3</sup>	501	n.a.	100
MK	860	-13,5	100
NL	13658	-10,4	100
PL <sup>4</sup>	17219	-5,1	100
PT	6655	-6,2	97
RO	6361	-4,9	100
RS	4499	-3,8	100
SI	1553	-12,3	100
SK	3160	-14,4	100
<b>UCTE</b>	<b>307025</b>	<b>-7,4</b>	
UA_W	614	-1,1	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> Highest load value as of May 2008

<sup>4</sup> Operational data

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